



ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 63

[EPA-HQ-OAR-2008-0334; FRL-9725-9]

RIN 2060-AQ89

**National Emission Standards for Hazardous Air Pollutants for
Chemical Manufacturing Area Sources**

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule; lift stay of final rule.

SUMMARY: On January 30, 2012, the EPA proposed revisions to several provisions of the final National Emission Standards for Hazardous Air Pollutants for Chemical Manufacturing Area Sources. The proposed revisions were made, in part, in response to a petition for reconsideration received by the Administrator following the promulgation of the October 29, 2009, final rule ("2009 final rule"). In this action, the EPA is finalizing those amendments, lifting the stay of the title V permit requirement issued on March 14, 2011, and lifting the stay of the final rule issued on October 25, 2012. In addition, this final action includes revisions to the EPA's approach for addressing malfunctions and standards applicable during startup and shutdown periods. This final action also includes amendments and technical corrections to the final rule to clarify applicability and compliance issues raised by stakeholders subject to the 2009

final rule. The revisions to the final rule do not reduce the level of environmental protection or emissions control on sources regulated by this rule but provide flexibility and clarity to improve implementation. This action also extends the compliance date for existing sources and the EPA's final response to all issues raised in the petition for reconsideration.

DATES: The stay of subpart VVVVVV and the stay of paragraph (e) of 40 CFR 63.11494 are lifted as of **[INSERT DATE OF PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER]**. This final rule is effective on **[INSERT DATE OF PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER]**.

ADDRESSES: The EPA has established a docket for this action under Docket ID No. EPA-HQ-OAR-2008-0334. All documents in the docket are listed in the www.regulations.gov index. Although listed in the index, some information is not publicly available, e.g., confidential business information or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, will be publicly available only in hard copy. Publicly available docket materials are available either electronically in www.regulations.gov or in hard copy at the EPA Docket Center, EPA West Building, Room 3334, 1301 Constitution Ave., NW, Washington, DC. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through

Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566-1744, and the telephone number for the Docket Center is (202) 566-1742.

FOR FURTHER INFORMATION CONTACT: Mr. Nick Parsons, Sector Policies and Programs Division (E143-01), Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711; telephone number: (919) 541-5372; fax number: (919) 541-0246; email address: parsons.nick@epa.gov.

SUPPLEMENTARY INFORMATION:

Acronyms and Abbreviations. Several acronyms and terms used to describe industrial processes are included in this final action. While this may not be an exhaustive list, to ease the reading of this preamble and for reference purposes, the following terms and acronyms are defined here:

CAA	Clean Air Act
CEMS	Continuous Emission Monitoring System
CFR	Code of Federal Regulations
CMAS	Chemical Manufacturing Area Source
CMPU	Chemical Manufacturing Process Unit
COMS	Continuous Opacity Monitoring System
CPMS	Continuous Parameter Monitoring System
EPA	Environmental Protection Agency
FESOP	Federally Enforceable State Operating Permit
GACT	Generally Available Control Technology
HAP	Hazardous Air Pollutants
HON	National Emission Standards for Organic Hazardous Air Pollutants From the Synthetic Organic Chemical Manufacturing Industry
ICR	Information Collection Request
lb/yr	Pounds Per Year
MACT	Maximum Achievable Control Technology

MON	National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing
MSDS	Material Safety Data Sheet
NESHAP	National Emissions Standards for Hazardous Air Pollutants
NOCS	Notice of Compliance Status
NTTAA	National Technology Transfer and Advancement Act
OECA	Office of Enforcement and Compliance Assurance
OMB	Office of Management and Budget
ppmv	Parts Per Million by Volume
RCRA	Resource Conservation and Recovery Act
SARU	Sulfuric Acid Regeneration Unit
SSM	Startup, Shutdown and Malfunction
tpy	Tons Per Year
TTN	Technology Transfer Network
UMRA	Unfunded Mandates Reform Act
VCS	Voluntary Consensus Standards
VOC	Volatile Organic Compound
WWW	World Wide Web

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A red-line version of the regulatory language that incorporates the changes in this action is available in the docket.

I. General Information

A. Executive Summary

1. Purpose of the Regulatory Action

The EPA issued the NESHAP for the nine chemical manufacturing area source categories (40 CFR part 63, subpart VVVVVV) on October 29, 2009 (74 FR 56008). Pursuant to CAA section 307(d)(7)(B), the EPA received a petition for reconsideration on February 12, 2010. The petitioners requested that the EPA reconsider six provisions in the final rule. In response to this petition, the EPA proposed revisions to several provisions of the final rule on January 30, 2012 (77 FR 4522).

This final action addresses the public comments on the proposal and finalizes amendments to subpart VVVVVV. The amendments relate to issues raised in the petition for reconsideration and also include technical corrections that clarify applicability and compliance issues of the final rule. This action also lifts the stay of the title V permit requirement that was issued on March 14, 2011 (76 FR 13514) and the stay of the final rule that was issued on October 25, 2012 (77 FR 65135). This action also provides an extension of the compliance date for existing sources.

2. Summary of Major Provisions

The revised final rule lifts the stay on the title V permitting requirement and requires that certain chemical manufacturing synthetic area sources that installed controls obtain a title V permit. The EPA continues to believe that the additional protections provided by a title V permit are warranted for the sources subject to title V pursuant to this rule for the reasons stated in the rulemaking record. See 74 FR 56013-56014, 56034-56039 (October 29, 2009); 77 FR 4525-4527 (January 30, 2012).

The EPA is also finalizing several revisions to the final rule to improve clarity and provide facilities with greater flexibility. The leak inspection requirements are revised such that facilities conduct quarterly sensory inspections instead of "direct and proximal (thorough)" inspections, and that leak inspections may be conducted while equipment is in VOC service instead of in organic HAP service. The final rule also allows facilities to remove the required cover or lid on a process vessel when access is required during manual operations. Several definitions, including "in organic HAP service," "in metal HAP service," "metal HAP process vent" and "family of materials" are clarified and/or revised in the final rule. The EPA is also finalizing several technical corrections. Finally, the EPA is extending the compliance date for existing sources until **[INSERT**

DATE 90 DAYS AFTER PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER] .

3. Costs and Emissions Reductions

The costs and emissions reductions associated with this rule have not changed from the October 29, 2009, final rule. Table 1 below summarizes the costs and emissions reductions of 40 CFR part 63, subpart VVVVVV. See section VI of the preamble to the October 29, 2009 final rule (74 FR 56039-56040) for further discussion of the costs and impacts.

Table 1. Summary of the Costs and Emissions Reductions of 40 CFR Part 63, Subpart VVVVVV

Requirement	Capital Costs (\$)	Annualized Costs (\$/yr)	Emissions Reductions (tpy)
Batch process vents	\$390,000	\$370,000	<43
Continuous process vents	\$170,000	\$85,000	<29
Metal HAP process vents	\$690,000	\$1,700,000	41
Storage tanks	\$85,000	\$15,000	5
Heat exchange systems	\$640,000	\$280,000	79
Transfer operations	\$75,000	\$10,000	1
Wastewater systems	\$210,000	\$79,000	51
Management practices	\$540,000	\$685,000	N/A
Total	\$2,800,000	\$3,200,000	248

B. Does this action apply to me?

The regulated categories and entities potentially affected by this action include:

Industry Category	NAICS Code ¹	Examples of Regulated Entities
Chemical Manufacturing	325	Chemical manufacturing area sources that use as feedstock, generate as byproduct or produce as product, any of the hazardous

air pollutants (HAP) subject to this subpart except for: (1) Processes classified in NAICS Code 325222, 325314 or 325413; (2) processes subject to standards for other listed area source categories² in NAICS Code 325; (3) certain fabricating operations; (4) manufacture of photographic film, paper and plate where material is coated or contains chemicals (but the manufacture of the photographic chemicals is regulated); and (5) manufacture of radioactive elements or isotopes, radium chloride, radium luminous compounds, strontium and uranium.

¹ North American Industry Classification System.

² The source categories in NAICS Code 325 for which other area source standards apply are: Acrylic Fibers/Modacrylic Fibers Production, Chemical Preparation, Carbon Black, Chemical Manufacturing: Chromium Compounds, Lead Oxide Production, Polyvinyl Chloride and Copolymers Production, Paint and Allied Coatings and Mercury Cell Chlor-Alkali Manufacturing.

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by this reconsideration action. To determine whether your facility may be affected by this final rule, you should examine the applicability criteria in 40 CFR 63.11494 of subpart VVVVV (National Emission Standards for Hazardous Air Pollutants for Chemical Manufacturing Area Sources). If you have any questions regarding the applicability of the final rule to a particular entity, consult either the air permit authority for the entity or your EPA regional representative, as listed in 40 CFR 63.13.

C. How do I obtain a copy of this document and other related information?

Docket. The docket number for this action and the final rule (40 CFR part 63, subpart VVVVVV) is Docket ID No. EPA-HQ-OAR-2008-0334.

World Wide Web (WWW). In addition to being available in the docket, an electronic copy of this action is available on the WWW through the Technology Transfer Network (TTN) website. Following signature, a copy of this notice will be posted on the TTN's policy and guidance page for newly proposed or promulgated rules at <http://www.epa.gov/ttn/oarpg>. The TTN provides information and technology exchange in various areas of air pollution control.

D. Judicial Review

Under section 307(b)(1) of the Clean Air Act (CAA), judicial review of this final rule is available only by filing a petition for review in the United States Court of Appeals for the District of Columbia Circuit by **[INSERT DATE 60 DAYS AFTER PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER]**. Under section 307(b)(2) of the CAA, the requirements established by this final rule may not be challenged separately in any civil or criminal proceedings brought by the EPA to enforce these requirements. Section 307(d)(7)(B) of the CAA further provides that "[o]nly an objection to a rule or procedure which was raised with reasonable specificity during the period for public comment (including any public hearing) may be raised during

judicial review." This section also provides a mechanism for the EPA to convene a proceeding for reconsideration, "[i]f the person raising an objection can demonstrate to EPA that it was impracticable to raise such objection within [the period for public comment] or if the grounds for such objection arose after the period for public comment (but within the time specified for judicial review) and if such objection is of central relevance to the outcome of this rule." Any person seeking to make such a demonstration to us should submit a Petition for Reconsideration to the Office of the Administrator, U.S. EPA, Room 3000, Ariel Rios Building, 1200 Pennsylvania Ave., NW., Washington, DC 20460, with a copy to both the person listed in the preceding **FOR FURTHER INFORMATION CONTACT** section, and the Associate General Counsel for the Air and Radiation Law Office, Office of General Counsel (Mail Code 2344A), U.S. EPA, 1200 Pennsylvania Ave., NW., Washington, DC 20460.

II. Background Information

Section 112(d) of the CAA requires the EPA to establish national emission standards for hazardous air pollutants (NESHAP) for both major and area sources of HAP that are listed for regulation under CAA section 112(c). A major source is any stationary source that emits or has the potential to emit 10 tons per year (tpy) or more of any single HAP or 25 tpy or more

of any combination of HAP. An area source is a stationary source that is not a major source.

On October 29, 2009 (74 FR 56008), the EPA issued the NESHAP for the nine chemical manufacturing area source (CMAS) categories that were listed pursuant to CAA sections 112(c)(3) and 112(k)(3)(B). The nine area source categories are Agricultural Chemicals and Pesticides Manufacturing, Cyclic Crude and Intermediate Production, Industrial Inorganic Chemical Manufacturing, Industrial Organic Chemical Manufacturing, Inorganic Pigments Manufacturing, Miscellaneous Organic Chemical Manufacturing, Plastic Materials and Resins Manufacturing, Pharmaceutical Production and Synthetic Rubber Manufacturing.

Section 112(k)(3)(B) of the CAA directs the EPA to identify at least 30 HAP that, as a result of emissions from area sources, pose the greatest threat to public health in the largest number of urban areas. The EPA implemented this provision in 1999 in the Integrated Urban Air Toxics Strategy, (64 FR 38715, July 19, 1999) (Strategy). Specifically, in the Strategy, the EPA identified 30 HAP that pose the greatest potential health threat in urban areas and these HAP are referred to as the "30 urban HAP." Section 112(c)(3) of the CAA requires the EPA to list sufficient categories or subcategories of area sources to ensure that area sources representing 90 percent of the area source emissions of the 30 urban HAP are

subject to regulation. The EPA completed this requirement in 2011 (76 FR 15308, March 21, 2011). The nine CMAS categories were listed to satisfy this requirement for 15 of the 30 urban HAP.¹ Pursuant to CAA section 112(d)(5), the NESHAP reflect generally available control technologies or management practices (GACT). The NESHAP apply to each chemical manufacturing process unit (CMPU) that uses, generates or produces any of the 15 urban HAP for which the area source categories were listed (collectively "chemical manufacturing urban HAP" or "Table 1 HAP").

On February 12, 2010, following promulgation of the 2009 final rule, the EPA received a petition for reconsideration from the American Chemistry Council and the Society of Chemical Manufacturers & Affiliates ("Petitioners"). A copy of this petition is provided in the docket (see Docket Item No. EPA-HQ-OAR-2008-0334-0098). Petitioners, pursuant to CAA section 307(d)(7)(B), requested that the EPA reconsider six provisions in the rules: (1) The requirement that major sources that installed air pollution controls after 1990, and, as a result, became area sources, obtain a title V permit; (2) the requirement that sources subject to the final rule and any overlapping provision in another rule comply with each provision

¹ The 15 urban HAP for which the chemical manufacturing area source categories were listed under CAA section 112(c) are identified in table 1 of the final rule.

independently, or with the most stringent requirements of each rule; (3) the requirement that leak inspections include direct and proximal (thorough) inspection of all areas of potential leak within the CMPU; (4) the requirement that process vessels in HAP service be equipped with a cover or lid that must be in place at all times when the vessel contains HAP, except for material addition and sampling; (5) the requirement to conduct leak inspections while the equipment is in HAP service; and (6) the requirement that a CMPU include all equipment and processes used to produce a "family of materials."² The arguments in support of these requests are provided in the petition and in the preamble to the reconsideration proposed rule revisions (77 FR 4525-4530, January 30, 2012). Petitioners also requested that the EPA stay the effectiveness of these provisions of the rule to save many facilities from needlessly having to file the initial notifications required by the final rule.

On June 15, 2010, the EPA sent a letter to the Petitioners informing them that the EPA was granting the request for reconsideration on at least one of the issues raised in the petition, and that the agency would identify the specific issue

² The petition also requested that the EPA take comment on three additional issues: 1) a de minimis exemption for all sources; 2) a revision of the definition of laboratory analysis unit to include commercial development activities; and 3) a pollution prevention alternative. The EPA did not seek comment on these issues in reconsideration as explained below in section VI of this preamble.

or issues for which it was granting reconsideration in the reconsideration notice that would be published in the **Federal Register**. The letter also indicated that the EPA considered the request for a stay to be moot because the due date for initial notifications had already passed.

On January 30, 2012, the EPA published proposed rule revisions that included six provisions for which reconsideration was requested. Specifically, the EPA: (1) proposed to narrow the requirement for sources to obtain a title V permit to only those synthetic area sources that installed a federally-enforceable control device on an affected CMPU; (2) sought comment on the overlapping provisions requirement; (3) proposed to remove the requirement to conduct direct and proximal (thorough) leak inspections; (4) proposed to allow sources to remove the cover or lid on a process vessel when manual access is necessary; (5) sought comment on allowing leak inspections to be conducted when equipment is in volatile organic compound (VOC) service; and (6) proposed to clarify the family of materials concept. In addition, the EPA also proposed clarifying revisions to the requirements for metal HAP process vents, the addition of the affirmative defense provisions and numerous technical corrections.

On October 25, 2012, the EPA published a 60-day stay of the final CMAS rule (77 FR 65135). The compliance date for the final

CMAS rule was October 29, 2012, and it was the EPA's expectation that the reconsideration would be finalized in advance of that date. However, the EPA was still in the process of finalizing the reconsideration action. For that reason, a short stay of the final rule was appropriate to allow the EPA the time necessary to complete the reconsideration action.

III. Summary of Final Rule Revisions

A. Applicability of the Family of Materials Concept

The final rule revises the definition of "family of materials" in 40 CFR 63.11502(a) by removing the definition that was incorporated by reference to the Miscellaneous Organic Chemical Manufacturing NESHAP (MON) and replacing it with a definition in 40 CFR 63.11502(b) specific to the CMAS rule. The definition clarifies that the family of materials concept applies only to those products whose production involves emission of the same Table 1 HAP.

B. Title V Permitting Requirements

The revised final rule requires synthetic area sources that installed a federally-enforceable control device on at least one affected CMPU to obtain a title V permit. The final rule lifts the stay on the title V permitting requirement (76 FR 13514, March 14, 2011) and requires such sources to submit their title V permit application by December 21, 2013 or on such earlier date as the title V permitting authority requires.

C. Requirements When Other Rules Overlap with the Final Rule

The revised final rule requires that facilities comply with the most stringent requirements when there are overlapping provisions in the CMAS rule and other NESHAP. Sources are required to determine which of the overlapping requirements applicable to the source are more stringent.

D. Requirement to Conduct Direct and Proximal Leak Inspections

The revised final rule removes the requirement in 40 CFR 63.11495(a)(3) that facilities conduct a "direct and proximal (thorough)" leak inspection, and instead requires that facilities conduct quarterly sensory inspections of all equipment and process vessels, provided that these methods are capable of detecting leaks within the CMPU (i.e., the inspector is within sufficient proximity to the equipment that leaky equipment can be detected by sight, sound or smell). The revised final rule also allows affected facilities to conduct leak inspections of equipment in VOC service instead of in organic HAP service, provided that leaks can be detected while in VOC service. A CMPU that contains metal HAP as particulate must conduct leak inspections while the equipment is in metal HAP service.

E. Requirement for Covers or Lids on Process Vessels

The final rule requires in 40 CFR 63.11495(a)(1) that a cover or lid must be in place and closed at all times when a

process vessel is in organic HAP service or in metal HAP service, except when access is required during manual operations such as material addition, removal, inspection, sampling and cleaning. Process vessels containing metal HAP that are in a liquid solution or other form that will not result in particulate emissions of metal HAP (e.g., metal HAP that is in ingot, paste, slurry or moist pellet form or other form) are not subject to this requirement.

The definitions of "in organic HAP service" and "in metal HAP service" in 40 CFR 63.11502(b) have been revised to state that a process vessel is no longer considered to be in organic HAP service or in metal HAP service once it has been emptied to the extent practicable and any cleaning has been completed.

F. Requirement to Conduct Leak Inspections When Equipment is in HAP Service

The final rule requires in 40 CFR 63.11495(a)(3) that leak inspections be conducted while the subject CMPU is operating in organic HAP service or in metal HAP service. This provision also allows CMPU that do not contain metal HAP as particulate to conduct leak inspections when the subject CMPU is in VOC service, provided that leaks can be detected while in VOC service. A CMPU that contains metal HAP as particulate must conduct leak inspections while the equipment is in metal HAP service.

G. Requirements During Periods of Startup, Shutdown and Malfunction

The EPA is adding to the final rule an affirmative defense to civil penalties for violations of emission standards that are caused by malfunctions. During the comment period of the October 6, 2008, proposed rule ("2008 proposal"), the United States Court of Appeals for the District of Columbia Circuit vacated two provisions in the EPA's CAA section 112 regulations governing the emissions of HAP during periods of startup, shutdown and malfunction (SSM). Sierra Club v. EPA, 551 F.3d 1019 (D.C. Cir. 2008), cert. denied, 130 S. Ct. 1735 (U.S. 2010). Specifically, the Court vacated the SSM exemption contained in 40 CFR 63.6(f)(1) and 40 CFR 63.6(h)(1), that are part of a regulation, commonly referred to as the "General Provisions Rule," that the EPA promulgated under section 112 of the CAA. When incorporated into CAA section 112(d) regulations for specific source categories, the exemption in these two provisions exempts sources from the requirement to comply with otherwise applicable CAA section 112(d) emission standards during periods of SSM.

The 2008 proposal contained references to the vacated provisions. Because the provisions were vacated, we removed the references in the 2009 final rule, and, consistent with Sierra Club v. EPA, established standards that applied at all times. In

the vacated provisions' place, we included alternative standards for startup and shutdown periods for continuous process vents. Table 3 to 40 CFR part 63, subpart VVVVVV. For batch process vents, we determined that startup and shutdown periods were already accounted for in the existing standard and we determined that the remaining equipment did not have periods of startup and shutdown. See 74 FR 56013, October 29, 2009. We declined to establish a different standard for malfunctions, as suggested by commenters. See 74 FR 56033, October 29, 2009.

Further, as explained in the preamble to the 2009 final rule (74 FR 56033, October 29, 2009), periods of startup, normal operations and shutdown are all predictable and routine aspects of a source's operations. However, by contrast, malfunction is defined as a "sudden, infrequent, and not reasonably preventable failure of air pollution control and monitoring equipment, process equipment or a process to operate in a normal or usual manner * * *" (40 CFR 63.2). The EPA has determined that CAA section 112 does not require that emissions that occur during periods of malfunction be factored into development of CAA section 112 standards. There is nothing in section 112 that directs the agency to consider malfunctions in determining the level "achieved" by the best performing or best controlled sources when setting emission standards. Moreover, while the EPA accounts for variability in setting emissions standards

consistent with the section 112 case law, nothing in that case law requires the agency to consider malfunctions as part of that analysis. Section 112 uses the concept of "best controlled" and "best performing" unit in defining the level of stringency that section 112 performance standards must meet. Applying the concept of "best controlled" or "best performing" to a unit that is malfunctioning presents significant difficulties, as malfunctions are sudden and unexpected events. Similarly, although standards for area sources are not required to be set based on "best performers," we believe that what is "generally available" should not be based on periods in which there is a "failure to operate."

Further, accounting for malfunctions would be difficult, if not impossible, given the myriad different types of malfunctions that can occur across all sources in the categories and given the difficulties associated with predicting or accounting for the frequency, degree and duration of various malfunctions that might occur. As such, the performance of units that are malfunctioning is not "reasonably" foreseeable. See, e.g., Sierra Club v. EPA, 167 F. 3d 658, 662 (D.C. Cir. 1999) (the EPA typically has wide latitude in determining the extent of data-gathering necessary to solve a problem. We generally defer to an agency's decision to proceed on the basis of imperfect scientific information, rather than to "invest the resources to

conduct the perfect study."). See also, Weyerhaeuser v. Costle, 590 F.2d 1011, 1058 (D.C. Cir. 1978) ("In the nature of things, no general limit, individual permit, or even any upset provision can anticipate all upset situations. After a certain point, the transgression of regulatory limits caused by 'uncontrollable acts of third parties,' such as strikes, sabotage, operator intoxication or insanity, and a variety of other eventualities, must be a matter for the administrative exercise of case-by-case enforcement discretion, not for specification in advance by regulation."). In addition, the goal of a best controlled or best performing source is to operate in such a way as to avoid malfunctions of the source and accounting for malfunctions could lead to standards that are significantly less stringent than levels that are achieved by a well-performing non-malfunctioning source. The EPA's approach to malfunctions is consistent with section 112 and is a reasonable interpretation of the statute.

In the event that a source fails to comply with the applicable CAA section 112(d) standards as a result of a malfunction event, the EPA would determine an appropriate response based on, among other things, the good faith efforts of the source to minimize emissions during malfunction periods, including preventative and corrective actions, as well as root cause analyses to ascertain and rectify excess emissions. The EPA would also consider whether the source's failure to comply

with the CAA section 112(d) standard was, in fact, "sudden, infrequent, not reasonably preventable" and was not instead "caused in part by poor maintenance or careless operation." 40 CFR 63.2 (definition of malfunction).

Finally, the EPA recognizes that even equipment that is properly designed and maintained can sometimes fail, and that such failure can sometimes cause a violation of the relevant emission standard. (See, e.g., State Implementation Plans: Policy Regarding Excessive Emissions During Malfunctions, Startup, and Shutdown (September 20, 1999); Policy on Excess Emissions During Startup, Shutdown, Maintenance, and Malfunctions (February 15, 1983)).

The EPA is therefore adding to the final rule an affirmative defense to civil penalties for violations of emission standards that are caused by malfunctions, consistent with other recent actions by the EPA (e.g., the NESHAP for Group I Polymers and Resins and the NESHAP for Pharmaceuticals Production. 76 FR 22566 (April 21, 2011)). See 40 CFR 63.11502 (defining "affirmative defense" to mean, in the context of an enforcement proceeding, a response or defense put forward by a defendant, regarding which the defendant has the burden of proof, and the merits of which are independently and objectively evaluated in a judicial or administrative proceeding). We also have added other regulatory provisions to specify the elements

that are necessary to establish this affirmative defense; the source must prove by a preponderance of the evidence that it has met all of the elements set forth in 40 CFR 63.11501(e). See 40 CFR 22.24. The criteria ensure that the affirmative defense is available only where the event that causes a violation of the emission standard meets the narrow definition of malfunction in 40 CFR 63.2 (sudden, infrequent, not reasonable preventable and not caused by poor maintenance and or careless operation). For example, to successfully assert the affirmative defense, the source must prove by a preponderance of the evidence that the violations "[w]ere caused by a sudden, infrequent, and unavoidable failure of air pollution control and monitoring equipment, process equipment, or a process to operate in a normal or usual manner..." The criteria also are designed to ensure that steps are taken to correct the malfunction, to minimize emissions in accordance with CAA section 63.11501(e), and to prevent future malfunctions. For example, the source must prove by a preponderance of the evidence that "[r]epairs were made as expeditiously as possible when a violation occurred..." and that "[a]ll possible steps were taken to minimize the impact of the violation on ambient air quality, the environment and human health..." In any judicial or administrative proceeding, the Administrator may challenge the assertion of the affirmative defense, and, if the respondent has not met its burden of

proving all of the requirements in the affirmative defense, appropriate penalties may be assessed in accordance with section 113 of the CAA (see also 40 CFR 22.77).

The EPA included an affirmative defense in this final rule in an attempt to balance a tension, inherent in many types of air regulation, to ensure adequate compliance while simultaneously recognizing that despite the most diligent of efforts, emission limits may be violated under circumstances beyond the control of the source. The EPA must establish emission standards that "limit the quantity, rate, or concentration of emissions of air pollutants on a continuous basis." 42 U.S.C. 7602(k) (defining "emission limitation and emission standard"). See, generally, Sierra Club v. EPA, 551 F.3d 1019, 1021 (D.C. Cir. 2008). Thus, the EPA is required to ensure that section 112 emissions limitations are continuous. The affirmative defense for malfunction events meets this requirement by ensuring that even where there is a malfunction, the emission limitation is still enforceable through injunctive relief. See generally, Luminant Generation Co. LLC v. United States EPA, 2012 U.S. App. LEXIS 21223 (5th Cir. Oct. 12, 2012) (upholding EPA's approval of affirmative defense provisions in a CAA State Implementation Plan). While "continuous" limitations, on the one hand, are required, there is also case law indicating that, in many situations, it is appropriate for the EPA to

account for the practical realities of technology. For example, in Essex Chemical v. Ruckelshaus, 486 F.2d 427, 433 (D.C. Cir. 1973), the D.C. Circuit acknowledged that, in setting standards under CAA section 111, "variant provisions" such as provisions allowing for upsets during startup, shutdown and equipment malfunction "appear necessary to preserve the reasonableness of the standards as a whole and that the record does not support the 'never to be exceeded' standard currently in force." See also, Portland Cement Association v. Ruckelshaus, 486 F.2d 375 (D.C. Cir. 1973). Though intervening case law such as Sierra Club v. EPA and the CAA 1977 amendments call into question the relevance of these cases today, they support the EPA's view that a system that incorporates some level of flexibility is reasonable. The affirmative defense simply provides for a defense to civil penalties for violations that are proven to be beyond the control of the source. By incorporating an affirmative defense, the EPA has formalized its approach to upset events. In a Clean Water Act setting, the Ninth Circuit required this type of formalized approach when regulating "upsets beyond the control of the permit holder." Marathon Oil Co. v. EPA, 564 F.2d 1253, 1272-73 (9th Cir. 1977). See also, Mont. Sulphur & Chem. Co. v. EPA, 2012 U.S. App. LEXIS 1056 (January 19, 2012) (rejecting industry argument that reliance on the affirmative defense was not adequate). But see, Weyerhaeuser

Co. v. Costle, 590 F.2d 1011, 1057-58 (D.C. Cir. 1978) (holding that an informal approach is adequate). The affirmative defense provisions give the EPA the flexibility to both ensure that its emission limitations are "continuous" as required by 42 U.S.C. 7602(k), and account for unplanned upsets and thus support the reasonableness of the standard as a whole.

In addition to the affirmative defense provisions described above, we are also making several changes throughout the rule and in Table 9 (the table that specifies applicability of General Provisions to subpart VVVVVV of 40 CFR part 63) to specify applicable requirements during periods of startup and shutdown and periods of malfunction. For example, we are adding new paragraphs in 40 CFR 63.11501(c)(1)(vii) and (viii) that would require records of the occurrence and duration of malfunctions, as well as records of actions taken to minimize emissions during these periods and to fix malfunctioning equipment. We are also adding a paragraph in 40 CFR 63.11501(d)(8) that would require reporting of information related to each malfunction. Table 9 in the final rule states that 63.6(e)(1)(i) does not apply to subpart VVVVVV. We are also adding a new paragraph in 40 CFR 63.11495(d) that specifies the general duty to minimize emissions applies at all times. In addition to the changes in the text of the rule, we are revising the entries for 40 CFR 63.6(e)(1)(i), 63.10(b)(2) and

63.10(d)(5) to reference the new paragraphs in 40 CFR 63.11495(d), 63.11501(c) and 63.11501(d). Finally, we are revising Table 9 to state that the performance testing requirements in 40 CFR 63.7(e)(1) do not apply. The comments to Table 9 for that provision identify the location of the applicable performance testing requirements for sources subject to the CMAS rule.

H. Requirements for Metal HAP Process Vents

The revised final rule defines a "metal HAP process vent" to include only those streams which contain at least 50 parts per million by volume (ppmv) metal HAP. Process vents from CMPU that only contain metal HAP in a liquid solution or other form that will not result in particulate emissions of metal HAP (e.g., metal HAP that is in ingot, paste, slurry or moist pellet form or other form) are not required to comply with the metal HAP process vent requirements.

I. Extension of the Compliance Date

The EPA is extending the compliance date for existing sources until **[INSERT DATE 90 DAYS AFTER PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER]**.

J. Technical Corrections

The final rule provides several technical corrections. These amendments are being finalized to correct inaccuracies and oversights that were previously promulgated. These changes are

described in Table 2 of this preamble. Several of these issues were identified through the public comments and the EPA identified others.

Table 2. Miscellaneous Technical Corrections to 40 CFR Part 63, Subpart VVVVVV

Section of subpart VVVVVV	Description of correction
40 CFR 63.11494(a)(3)	We are finalizing several changes to this paragraph. First, we are clarifying that the 0.1-percent and 1.0-percent concentration thresholds are on a mass basis of the individual Table 1 HAP. Second, we are clarifying that all Table 1 HAP, except for quinoline, manganese, and trivalent chromium compounds, are considered carcinogenic, probably carcinogenic or possibly carcinogenic. Therefore, the concentration threshold of 1.0 weight percent applies only to quinoline, manganese, and trivalent chromium compounds, and the threshold of 0.1 weight percent applies to all other Table 1 HAP. Third, we are clarifying applicability of CMPU that generate a Table 1 HAP byproduct. If Table 1 HAP are generated as a byproduct, the changes clarify that the CMPU is subject to the rule if the concentration of the Table 1 HAP in any liquid stream in the CMPU exceeds the same thresholds that apply to feedstocks. Specifically, if quinoline is generated as a byproduct, then the CMPU is subject if the quinoline concentration in any liquid stream in the CMPU exceeds 1.0 percent by weight. Similarly, if hydrazine or any other organic Table 1 HAP is generated as a byproduct, then the process is subject if the individual concentration of these compounds in any liquid stream is greater than 0.1 percent by weight. In

	addition, we are clarifying that if hydrazine or any other organic Table 1 HAP is generated as a byproduct, then the process is subject if the individual concentration of these compounds in any batch process vent or continuous process vent is greater than 0.1 percent by weight. Finally, we are consolidating paragraphs (a)(1) and (3) to eliminate redundancy.
40 CFR 63.11494(c)(1)(vii)	We are adding a new paragraph that lists lead oxide production at lead acid battery manufacturing facilities in those operations for which this subpart does not apply. These sources are covered by 40 CFR part 63, subpart P - NESHAAP for Lead Acid Battery Manufacturing Area Sources.
40 CFR 63.11494(d)	We are clarifying that a CMPU using only Table 1 metal HAP is not subject to any requirements for wastewater systems or heat exchange systems. Only organic HAP are subject to wastewater and heat exchange system requirements.
40 CFR 63.11495(a)(3)	We are splitting this section into an introductory section with five subsections. One sentence that contains two concepts has also been split into two separate sentences. The requirements, however, have not changed.
40 CFR 63.11496(c)	We are adding an example of emission contributions to subtract when determining the TRE index value of individual streams before they are combined.
40 CFR 63.11496(d)	We are revising the title of this paragraph and clarifying that the mass emission rate of halogen atoms must be calculated in accordance with §63.115(d)(2)(v), or alternatively you may designate an emission stream as halogenated.
40 CFR 63.11496(e)	We are adding a new paragraph that clarifies that CEMS requirements and

	data reduction requirements for CEMS specified in §63.2450(j) apply.
40 CFR 63.11496(f)(3)(i)(C)	We are editing this paragraph to add the acronym "CMS."
40 CFR 63.11496(f)(3)(ii)	We are editing the first sentence in this paragraph to remove the unnecessary word "report."
40 CFR 63.11496(f)(3)(ii)	We are clarifying that if a source elects to conduct an engineering assessment to demonstrate initial compliance with the standards for metal HAP process vents, then the design evaluation must be conducted at representative operating conditions for the CMPU.
40 CFR 63.11494(g)(2)	We are clarifying that you may elect to conduct a design evaluation instead of a performance test to determine initial compliance with an outlet concentration emission limit.
40 CFR 63.11494(g)(4)(i)	We are clarifying that you may measure caustic strength of the scrubber effluent for any halogen scrubber within a CMPU subject to this rule.
40 CFR 63.11494(g)(5)	We are clarifying that 40 CFR 63.996(c)(2)(ii) and 63.998(c)(1)(ii)(E) do not apply for the purposes of this subpart.
40 CFR 63.11494(g)(8)	We are adding a new paragraph that clarifies when the initial demonstration requirements for process condensers applies.
40 CFR 63.11497	We are adding a paragraph to this section clarifying that the halogenated vent stream provisions also apply to affected storage tanks.
40 CFR 63.11498(a)(2), 63.11502(b), and Table 6	We are adding a definition of "hazardous waste treatment" in 40 CFR 63.11502(b) to mean treatment in either (1) a RCRA-permitted incinerator, process heater, boiler, or underground injection well, or (2) an incinerator, process heater, or boiler complying with 40 CFR part 63, subpart EEE. We are also adding corresponding changes

	<p>to Table 6 to subpart VVVVVV. Specifically, for each wastewater stream, Item 1.a would require either wastewater treatment or hazardous waste treatment. In addition, Item 2.b would be edited to use the new term "hazardous waste treatment" and to allow for hard piping of wastewater streams to a point of transfer to onsite hazardous waste treatment. The changes to Item 1.a also make it clear that the treatment conducted to meet Item 2.b would satisfy the requirements of Item 1.a.</p>
40 CFR 63.11500(a) and Table 5	<p>We are adding a paragraph to 40 CFR 63.11500(a) to clarify that that offsite reloading and cleaning facilities that are subject to 40 CFR 1253(f) and comply with the monitoring, recordkeeping, and reporting requirements in any other subpart of part 63 are considered to be in compliance with the monitoring, recordkeeping, and reporting requirements of 40 CFR 63.1253(f)(7)(ii) or (iii). We are also adding corresponding changes to Table 5 to subpart VVVVVV to clarify which requirements apply to owners or operators of offsite cleaning or reloading facilities.</p>
40 CFR 63.11501(b)	<p>We are revising this paragraph to allow sources to submit their notice of compliance status (NOCS) reports no later than 60 days after the applicable compliance date.</p>
40 CFR 63.11501(c)(4)(i)	<p>We are replacing the incorrect word "dimension" with the correct word "dimensions."</p>
40 CFR 63.11502(a)	<p>We are inserting references to the definitions of the terms "batch operation," "continuous operation," and "isolated intermediate" in 40 CFR 63.2550 of the MON. We are also inserting a reference to the definition of "control device" in 40 CFR 63.111 of</p>

the Hazardous Organic Chemical
Manufacturing NESHAP (HON).

40 CFR 63.11502(b)	We are modifying the definition of "batch process vent" to clarify that vents from batch operations are considered to be batch process vents.
40 CFR 63.11502(b)	We are adding a definition for the term "engineering assessment" consistent with 40 CFR 63.1257(d)(2)(ii), but which has been revised to include the appropriate references for this rule.
40 CFR 63.11502(b)	We are adding a definition for the term "point of determination" consistent with 40 CFR 63.111 of the HON, but which has been revised to include the appropriate references for this rule.
40 CFR 63.11502(b)	We are modifying the definition of "product" to remove "isolated intermediates" from the list of materials that are not considered products.
40 CFR 63.11502(b)	We are adding a definition for the term "uncontrolled emissions" that reads: "Uncontrolled emissions means organic HAP or metal HAP process vent emissions, as applicable, at the outlet of the last recovery device, if any, and prior to any control device. In the absence of both recovery devices and control devices, uncontrolled emissions are the emissions discharged to the atmosphere."
Table 3	We are replacing the reference to 40 CFR 63.982(c)(2) in item 1.a with the correct reference to 40 CFR 63.982(c).
Table 3	We are adding an item to this table for continuous process vents with a TRE >1.0 but ≤4.0. This item clarifies that these continuous process vents are required to comply with 40 CFR 63.982(e) if a recovery device is used to maintain a TRE >1.0 but ≤4.0.
Table 5	We are replacing the reference to 40 CFR 63.982(c)(1) in item 1.b with the correct reference to 40 CFR 63.982(c).

	We are also removing the requirement in item 1.b.ii to comply with the inspection requirements in 40 CFR 63.11495 for closed vent systems.
Table 8	We are revising item 1.a.i to clarify that the reference to monthly monitoring for the first 6 months in 40 CFR 63.104(b)(1) does not apply.
Table 9	We are revising the entry to 40 CFR 63.8(c)(4) to state that this paragraph does apply, but only for CEMS. The requirements for CPMS are contained in 40 CFR part 63, subpart SS, and requirements for COMS do not apply.
Table 9	We are revising the entry for 40 CFR 63.8(g)(5) to clarify that the data reduction requirements for CEMS are specified in 40 CFR 63.2450(j) and that CPMS requirements are specified in 40 CFR part 63, subpart SS.
Table 9	We are adding an entry for 40 CFR 63.9(i) to state that this paragraph applies to subpart VVVVVV.

IV. Summary of Major Changes Since Proposal

The EPA received 19 public comment letters on the proposed revisions to the CMAS final rule. In addition, the EPA received six comments and sets of materials from industry representatives following the close of the comment period. After consideration of these comments, the EPA is making several changes to the final rule. Following are the major changes to the standards since the proposal. The rationale for these and other significant changes can be found in this section, in section V of this preamble, and in the National Emission Standards for Hazardous Air Pollutant Emissions for Chemical Manufacturing

Area Source - Reconsideration: Summary of Public Comments and Responses, in the CMAS rule docket (EPA-HQ-OAR-2008-0334).

A. Title V Permitting Requirements

In the proposed rule revisions, we proposed to narrow the applicability of title V permitting requirements for certain synthetic area sources subject to the final rule. Specifically, under the proposal, only those sources that installed a federally-enforceable control device on an affected CMPU in order to become an area source would be subject to the requirement to obtain a title V permit. The EPA received public comments on this issue from industry representatives and two states during the public comment period. Public commenters were generally opposed to the EPA requiring any affected source to obtain a title V permit. The commenters were concerned that the burden of obtaining a title V permit was not warranted given the level of public participation already required by, and other requirements associated with, a Federally Enforceable State Operating Permit (FESOP) that sources with a federally-enforceable control device must already obtain. However, commenters stated that if the EPA should choose to require certain sources to obtain a title V permit, then they supported limiting the requirement to apply to only those sources that installed a federally-enforceable control device on an affected CMPU.

As a preliminary matter, we note that section 502(a) of the CAA requires all area sources subject to CAA section 112 standards to obtain a title V permit unless the EPA makes a finding that title V is impracticable, infeasible or unnecessarily burdensome. The EPA did not exempt CMAS synthetic area sources that installed controls to limit HAP emissions because we believe that the limited burden resulting from the applicability of title V to these area sources is outweighed by the benefits of the title V permit. The EPA also continues to maintain that "while there is some burden on the affected facilities, we think that the burden is not significant because these facilities are generally larger and more sophisticated than the natural area sources and sources that took operational limits to become area sources." 74 FR 56014.

In the final rule revisions, we have made slight revisions to the proposed changes to the title V permit requirement to further clarify the applicability of title V to CMAS sources. Specifically, we have revised the rule to make clear that the installation of a federally-enforceable air pollution control device on an affected CMPU triggers the title V permit requirement for any synthetic area source subject to the final rule if the air pollution controls installed on the affected CMPU are required to maintain the source's emissions at area source levels. The EPA continues to believe that the additional

protections provided by a title V permit are warranted for CMAS synthetic area sources that installed controls because they are generally larger, more sophisticated and have higher HAP emissions before control than natural area sources and synthetic area sources that took operational limits. See 74 FR 56013-56014, 56034-56039 (October 29, 2009); 77 FR 4525-4527 (January 30, 2012).

If a synthetic area source is subject to the CMAS rule and it has installed a federally-enforceable control device on an affected CMPU in order to become an area source, it is subject to title V and it must obtain a permit. Under 40 CFR 70.3(c)(2), for any non-major source subject to title V, the permitting authority must include in the permit all applicable requirements that apply to emissions units (i.e., the CMPU) that trigger applicability of title V. 40 CFR 70.3(c)(2); see also 40 CFR 70.2 (defining "applicable requirement"). Thus, the state title V permitting authority may require a source subject to title V pursuant to the CMAS rule to include in the title V permit only the applicable requirements that apply to the CMPU(s) that cause the source to be subject to title V.

Additionally, based on the comments submitted by industry, we appreciate industry's concern that, due to the nature of chemical manufacturing, specifically specialty and batch chemical manufacturing, the industry needs operational

flexibility and that some types of operational changes involving the affected CMPU could be subject to frequent title V revisions. There are several flexible permitting techniques available to sources through the title V permitting program, such as Alternative Operating Scenarios and Approved Replicable Methodologies. See 74 FR 51418 (October 6, 2009). We therefore encourage sources to consider the viability of establishing flexibility upfront in their respective title V permits as a way to avoid permit revisions, without sacrificing compliance assurance or operational flexibility.

B. Requirement for Covers or Lids on Process Vessels

In the proposed rule revisions, we requested comment on whether a change was needed for the definition of "in metal HAP service" to make it consistent with the proposed revisions to the definition of "in organic HAP service." Public commenters were generally in favor of these proposed revisions.

In the final rule revisions, we have revised the definition of "in metal HAP service" to state that, consistent with the revised definition of "in organic HAP service," a process vessel is no longer in metal HAP service after the vessel has been emptied to the extent practicable (i.e., a vessel with liquid left on process vessel walls or as bottom clingage, but not in pools, due to floor irregularity, is considered completely empty) and any cleaning has been completed. We have also revised

the requirement that a cover or lid must be in place and closed at all times when a process vessel is in organic HAP service or in metal HAP service to not apply for CMPU using only metal HAP that are in a liquid solution or other form that the source determines will not result in particulate emissions of metal HAP (e.g., metal HAP that is in ingot, paste, slurry or moist pellet form or other form).

C. Requirement to Conduct Leak Inspections When Equipment is in HAP Service

We solicited comment on whether to permit leak inspections to be conducted when equipment was in VOC service, rather than just when it was in organic HAP service or in metal HAP service. Public commenters were generally in favor of allowing leak inspections to be conducted while equipment was in VOC service.

In the final rule revisions, we are allowing facilities to conduct leak inspections of equipment in VOC service, provided that leaks can be detected while in VOC service. A CMPU that contains metal HAP as particulate must conduct leak inspections while the equipment is in metal HAP service. We have also added a corresponding definition of "in VOC service" to mean that a process vessel or piece of equipment either contains or contacts a fluid that contains VOC.

D. Requirements for Metal HAP Process Vents

In the proposed rule revisions, we solicited comment on whether the definition of "metal HAP process vent" was applicable to all types of equipment from which metal HAP are emitted. The original rule defined a metal HAP process vent as "the point of discharge to the atmosphere (or inlet to a control device, if any) of a metal HAP-containing gas stream from any CMPU at an affected source," regardless of the concentration of metal HAP in the stream. Public commenters were generally in favor of defining a metal HAP process vent as containing at least 50 ppmv metal HAP, consistent with the MON.

In the final rule revisions, we have revised the definition of "metal HAP process vent" to include only those streams which contain at least 50 ppmv metal HAP. We have also revised the final rule to state that process vents from CMPU that only contain metal HAP in a liquid solution or other form that will not result in particulate emissions of metal HAP (e.g., metal HAP that is in ingot, paste, slurry or moist pellet form or other form) are not required to comply with the metal HAP process vent requirements.

E. Extension of the Compliance Date

In the proposed rule revisions, we did not propose to revise the compliance date for the final rule, which was October 29, 2012. Under CAA section 112, the compliance date may be no more than 3 years after the effective date of the final rule,

which for the CMAS rule was October 29, 2009. Public commenters were concerned that due to the expected short period of time between the promulgation of the final rule amendments and the existing October 29, 2012, compliance date, there would not be sufficient time for facilities to review the revised rule requirements and certify compliance by the compliance date. The commenters were particularly concerned with determining compliance because the proposed changes to the family of materials concept may affect applicability of the final standards to CMPU located at sources subject to the CMAS rule. It was the EPA's expectation that the reconsideration would be finalized in advance of October 29, 2012, compliance date. However, the EPA was still in the process of finalizing the reconsideration action, and on October 25, 2012, the EPA published a 60-day stay of the final CMAS rule (77 FR 65135).

In the final rule, the EPA is extending the compliance date for existing sources until **[INSERT DATE 90 DAYS AFTER PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER]**. We agree that existing sources should have additional time to evaluate applicability in light of the amendments to the rule since publication of the final reconsideration action is occurring so close to the existing source compliance date. We think this short extension will provide sources the necessary time to determine applicability and take the actions necessary to comply

with the final rule. The EPA is not revising the compliance date for new sources.

F. Technical Corrections

In the proposed rule revisions, we proposed in 40 CFR 63.11494(a)(3) a technical correction that the concentration thresholds for applicability of Table 1 HAP present in feedstocks or any liquid streams (process or waste) were to be determined on a collective Table 1 HAP basis. In addition, we also proposed to specify that a CMPIU is subject to the CMAS rule if the collective concentration of Table 1 HAP exceeded 50 ppmv in any process vent stream. Public commenters were concerned that by revising the rule to determine applicability based on collective Table 1 HAP concentration and a 50 ppmv threshold, the applicability of the rule would be greatly expanded beyond its original scope.

In the final rule revisions, we have revised this language to clarify that the concentration thresholds for applicability of Table 1 HAP are to be determined on an individual Table 1 HAP concentration, rather than a collective concentration. In addition, we have also clarified that the 0.1 percent by weight threshold for Table 1 HAP present in liquid streams (process or waste) also applies to Table 1 HAP present in any continuous process or batch process vent, rather than the proposed 50 ppmv threshold.

We are not finalizing this proposed change because we did not fully consider the implications of the proposed change. We included the proposed change in the technical corrections section of the proposed rule on the belief that it was a technical change, but, in fact, the change, if finalized, would have had significant consequences. The proposed change would have likely lead to a considerable expansion of the applicability of the rule. In addition, sources would no longer have been able to determine applicability by reviewing their Material Safety Data Sheets (MSDS) as the 2009 final rule provides because the MSDS does not indicate the amount of emissions below the 0.1 percent threshold. This would mean that sources would have to go to considerable lengths at considerable cost in testing very low levels of HAP to even determine whether the final rule applies to their CMPUs, which is not what the EPA intended.

V. Summary of Comments and Responses

This section contains a summary of major comments and responses and rationale for changes made to the proposed rule. The EPA received many comments covering numerous topics. The EPA's responses to those comments can be found either in this preamble or in the National Emission Standards for Hazardous Air Pollutant Emissions for Chemical Manufacturing Area Source -

Reconsideration: Summary of Public Comments and Responses, in the CMAS rule docket (EPA-HQ-OAR-2008-0334).

A. Title V Permitting Requirements

Comment: Eight commenters objected to the requirement that certain synthetic area sources subject to the CMAS rule be required to obtain a title V permit. The commenters stated that the requirement would be overly burdensome and that it would impose significant additional costs on facilities while achieving no additional environmental benefit or gains in compliance. The commenters estimate that it will cost a facility \$25,000-\$100,000 to obtain a title V permit.

In contrast, one commenter stated that the cost of obtaining a title V permit instead of a synthetic area source permit in their area is comparable due to associated permit fees for synthetic area source permits and emission fees for title V permits.

Response: The EPA disagrees with the commenters that the requirement to obtain a title V permit is overly burdensome and we maintain that title V is appropriate for the sources that will be subject to title V pursuant to this final rule. In the preamble to the final rule, we determined that "requiring additional public involvement and compliance assurance requirements through title V is important to ensure that these sources are maintaining their emissions at the area source

level, and, while there is some burden on the affected facilities, we think that the burden is not significant because these facilities are generally larger and more sophisticated than the natural area sources and sources that took operational limits to become area sources." 74 FR 56014. The cost estimates provided by the commenters are very broad and the commenters do not provide any information to support the cost estimates that were provided; therefore, the EPA is unable to evaluate the validity of these estimates.

Comment: Three commenters expressed concern with the impacts that the title V program requirements might impose on a source subject to the CMAS rule. In particular, they expressed concern with the ability of batch operations that have the need for quick changes to their production processes to be able to make such changes rapidly and with the necessary permitting flexibility. The commenters stated that by requiring a title V permit, the facility will be required to apply for a permit modification every time they wanted to manufacture a new product, costing them both time and money and placing them at a competitive disadvantage.

Response: We appreciate that the commenters want to maintain operational flexibility, but title V permits can and do accommodate provisions that provide operational flexibility for batch processing (and other) operations. In fact, permitting

authorities have been incorporating operational flexibility for batch processes into title V permits through a variety of mechanisms provided under existing rules. These flexibilities have eliminated the need to modify permits when new products are manufactured. For example, since 2003, a number of specialty chemical manufacturers, who use batch processing, are subject to title V permitting under the Miscellaneous Organic NESHAP (MON). To accommodate the need for frequent operational changes at these facilities, states have issued flexible operating permits that provide these sources with the ability to obtain approval in advance for a variety of alternative operating scenarios, categories of changes, plant-wide applicability limits, or other operating flexibilities that enable them to operate in the most effective way while still complying with the requirements of the title V program. As the CMAS rule notes, batch CMAS sources, like MON sources, can take advantage of similar flexibilities and set their continuous monitoring parameters based on their projected range of batch scenarios.

This type of flexibility has been effectively incorporated into title V permits to sources in the semiconductor industry for many years. Just like the specialty chemical manufacturing industry, the semiconductor industry operates in a rapidly changing environment, requiring flexibility to make quick changes without the need to go through permit modifications.

Through the use of advance approvals and flexible permits, companies such as Intel have been able to operate in a quickly changing environment while complying with the requirements of the title V program. Intel currently introduces a new generation of semiconductor chips every 12 to 24 months, with each new product cycle supported by a major facility revamp. These operational changes are time sensitive to meet product release schedules from computer and electronics manufacturers and involve highly interdependent and sequenced steps. Intel also reported a need to make rapid (and sometimes iterative) process and equipment adjustments in production processes to improve yield, lower costs, reduce chemical usage, and otherwise improve operations. The advance approved changes in Intel's flexible permit likely saved the plant hundreds of business days associated with making operational and process changes to ramp up production for new products, respond to market demands, and optimize production processes. Industry estimates of the opportunity costs of production downtime and time delays run as high as several million dollars in just a few days due to lost sales to computer makers and other factors. The estimated 150 to 200 changes per year, combined with the otherwise normally expected approval time frame of up to 60 days per change, indicate that there would likely have been significant delay under a conventional permitting approach. Intel has in the past

cited its flexible air permit as a vital element enabling Intel to double employment during the permit term and to transfer and scale-up production of next generation computer chips at plants throughout the U.S., retaining and creating thousands of additional jobs.

The EPA is willing to work with companies and state permitting authorities to ensure they are aware of the flexibilities already available under the title V permitting program that address the concerns of the small number of CMAS synthetic area sources that must obtain a title V permit.

Comment: Four commenters stated that the process for obtaining a synthetic area source permit and the amount of information contained in it are very similar to those of a title V permit. Three of the commenters detailed the steps involved in obtaining each type of permit, as well as the information contained in each. The commenters also stated that both processes provide opportunity for public comment on the draft permit and that the facilities may be required to certify compliance annually. One of the commenters also provided general information on FESOPs and synthetic area source permits issued in Illinois and Ohio. Another commenter also provided general information on FESOP and synthetic area source permits for 11 states, including whether notice and comment is required and what additional oversight is conducted by the state. One

commenter noted that FESOP programs must be approved through State Implementation Programs, which provide an opportunity for both the EPA and public comment. Another commenter stated that under the North Carolina Division of Air Quality's air permitting program, synthetic area sources are already subject to annual inspections similar to what title V requires. The commenter also stated that sources that have add-on controls typically have lower emissions than sources that have taken operational limits to become synthetic area sources.

Response: While the commenters provided broad, general information on the requirements of FESOPs as compared to title V permits, none of them provided specific examples of these permits for the EPA to evaluate and compare to title V permits. Without this specific information from each state (as the requirements for a FESOP vary by state), the EPA cannot conclude that FESOPs provide the same level of information as that of a title V permit. In addition, unlike FESOP programs, petitions to object to title V permits may be brought before the EPA. As the requirements for public participation for a FESOP vary by state, the EPA cannot be assured that all citizens in all states would be afforded the same level of public participation that a title V permit would provide.

In addition, title V requires a facility to include in the title V permit all applicable requirements that apply to CMAS

affected units, not just the CMPU requirements that trigger applicability of title V, so that the public will be able to assess a source's compliance with all requirements that apply to CMAS affected units by reviewing the title V permit. The public is provided access to compliance demonstration information submitted to state permitting authorities and there is no indication in the comments that such information is available pursuant to state FESOP programs.

Furthermore, even though certain states, such as North Carolina, may require that a synthetic area source be subject to additional inspections, this requirement varies by state and only a title V permit would assure that these additional inspections are required for all CMAS synthetic area sources required to obtain a title V permit. Finally, we do not agree with the assertion that sources that install control devices necessarily have lower emissions than those that have taken operational limits to maintain area source status, as both types of synthetic area sources are subject to the same requirement to maintain emissions below 10 tpy of any single HAP or 25 tpy of any combination of HAP. It is the potential level of emissions from the synthetic area source absent controls or operational limits that we considered when comparing the two types of synthetic area sources. In the 2009 final rule and the reconsideration proposed rule revisions, we noted that one

reason why we were not exempting synthetic area sources that installed controls from title V is because we believe the sources are "generally larger and more sophisticated" than natural area sources and the synthetic area sources that took operational limits. See 77 FR 4525; 74 FR 56014. We also stated that we believe the uncontrolled HAP emissions from synthetic area sources that installed controls are generally much higher than the natural area sources and synthetic area sources that took operational limits. Id. The commenters did not provide any information that causes us to question our conclusions.

Comment: Four commenters stated that requiring synthetic area sources that installed control devices to obtain a title V permit would create a disincentive for facilities to maintain their synthetic area source status by either voluntarily reducing their emissions or installing add-on controls in lieu of taking production limits, which would have a negative impact on air quality.

Response: The EPA disagrees that requiring title V permits would discourage facilities from maintaining their synthetic area source status, as facilities would in most, if not all, cases be subject to existing NESHAP applicable to chemical manufacturing major sources if they did not maintain synthetic area source status. For example, these sources would likely be subject to the HON or the MON, both of which require more

frequent inspections and more stringent control of emissions. The EPA believes that avoiding these additional requirements would still provide incentive for facilities to maintain their synthetic area source status. In addition, all major sources of HAP subject to NESHAP are required to obtain a title V permit so the sources would still be required to comply with title V.

Comment: One commenter stated that it is punitive to require title V permits for sources that have already made a capital investment to achieve area source status and avoid title V permits in the past. The commenter stated that the EPA is ignoring the environmental benefit associated with the installation of federally-enforceable control devices by focusing on the uncontrolled potential of these sources.

Response: Pursuant to section 502(a) of the CAA, all area sources subject to CAA section 112 standards are required to obtain a title V permit unless the EPA makes a finding that title V is impracticable, infeasible or unnecessarily burdensome. Thus, there is no basis to support the statement that title V is punitive in nature and the EPA disagrees that requiring title V permits for synthetic area sources that installed control devices is punitive. Furthermore, we are not ignoring the environmental benefit of controlling HAP emissions by requiring title V for certain CMAS sources.

In most, if not all, cases, synthetic area sources that installed controls would be subject to existing NESHAP applicable to major sources if they did not take synthetic area source limits and those standards are set at the maximum achievable control technology (MACT) level. Since MACT standards are technology based standards established based on the performance of the best performing source(s), it is likely the commenter would have had to achieve a comparable level of emissions reductions even if they had not taken the synthetic area source limit. While the EPA appreciates the environmental benefit attained by facilities that have installed these control devices to become area sources, we still believe that title V permitting is appropriate to, among other things, ensure: that synthetic area sources that installed controls are maintaining their emissions at the permitted level; that the public is able to review and evaluate the source's permit and compliance; that there is adequate monitoring, recordkeeping and reporting; and that the source's management is required to certify compliance with the CAA requirements applicable to the source.

Comment: Three commenters stated that if the EPA should choose to finalize the title V permit requirement, they supported the decision to limit this requirement to only facilities that have installed controls on an affected CMPSU subject to the CMAS rule.

Response: The EPA has finalized revisions to the title V permit requirement; however, the EPA has made some revisions to the title V permit requirement to further clarify the applicability of title V to CMAS sources. The final rule only requires title V permits for facilities that have installed a federally-enforceable control device on at least one affected CMPU and the air pollution control device is required to maintain the source's emissions at area source levels.

Comment: One commenter expressed concern that while the language of the original final rule made it clear that their facility was exempted from the title V requirement, the proposed revisions made it ambiguous as to whether the facility would be required to obtain a title V permit. The commenter believed that the revised provisions for obtaining a title V permit would no longer exclude sources that were never a major source, and could instead be interpreted to mean that any synthetic area source, regardless of whether it was previously major or area, that installed a federally-enforceable control device on an affected CMPU would be subject to the title V permit requirement. The commenter requested that this requirement only apply to sources that became a synthetic area source as a direct result of installing the federally-enforceable control device.

Response: In response to comments on the proposed rule, the EPA has revised the final rule language to clarify the scope of

the title V permit requirement. Specifically, the final rule requires a title V permit for any synthetic area source subject to the CMAS rule that would be a major source but for the installation of a federally-enforceable control device on at least one affected CMPU. The final title V requirement language affords no consideration to the purpose of the installed control device, other than it being necessary to maintain the source's emissions at area source levels, or the timing of the installation of the control device.

B. Requirements When Other Rules Overlap With the Final Rule

Comment: One commenter stated that it is not always clear what the most stringent provisions are when looking at overlapping provisions. The commenter requested that the EPA revise the rule to require facilities to make their best determination of stringency and submit to the appropriate agency for review and comment. The commenter also requested that states should be allowed to make streamlined determinations on stringency on an overall program stringency basis rather than individual rule provisions of overlapping rules.

Response: The EPA disagrees with the commenter that it is necessary to revise the final rule to allow for facilities to submit their stringency determinations for review and comment to their permitting authority. As the requirements of this section are entirely optional, we do not believe it to be appropriate to

place additional burden on the local permitting authorities to make the determination of what the most stringent provisions are. Instead, we believe that this responsibility should continue to be placed on the facility. For those sources that are unable to determine the more stringent requirements, we continue to believe that it is more appropriate to evaluate requests for clarification on a case-by-case basis.

In addition, we also believe that it would be inappropriate for us to make a determination of equivalency among the numerous state streamlined programs with the requirements of the CMAS rule. As noted in the preamble to the proposed rule revisions, "[w]e did not include language that defines the more stringent requirements, as found in other rules, due to the great variety in characteristics of CMAS processes and the wide variety of compliance options in both the CMAS rule and overlapping rules. This variety makes it difficult to develop language that would not inadvertently allow a CMAS facility to comply with requirements less stringent than those contained in 40 CFR part 63, subpart VVVVVV, or less stringent than the required control level in an overlapping rule." (77 FR 4528). For these reasons, we are not revising these provisions in the final rule.

C. Requirement to Conduct Direct and Proximal Leak Inspections

Comment: Four commenters supported the proposed revisions to remove the requirement to conduct "direct and proximal" leak

inspections and stated that the proposed sight, sound or smell inspections are appropriate.

Response: The EPA has finalized the proposed revisions to the leak detection requirements.

D. Requirement for Covers or Lids on Process Vessels

Comment: Three commenters requested that the EPA clarify that for metal HAP precipitate, or metal HAP in solution, the requirement to install a cover or lid on process vessels in metal HAP service does not apply. The commenters cited the low potential for emissions from these low vapor pressure metal HAP solutions as rationale for not imposing this requirement on such units. One commenter estimated that without this change, their facility would have to invest over \$1,000,000 in covers/lids for their clarifiers, which are used to gravity-separate solids from solution and have very low potential for emissions. One commenter cited 40 CFR part 63, subpart CCCCCC as an example of an area source rule that does not require this for metal HAP in solution. The commenter also provided examples of regulatory text that could be used in the CMAS rule.

Response: The EPA agrees with the commenters that the requirement to install a cover or lid for process vessels in metal HAP service is unnecessary for metal HAP in solution. As there is very little or no potential for air emissions to occur from these solutions, the rule need not require the process

vessel to be covered. As such, we have revised the final rule to state that process vessels that only contain metal HAP in a liquid solution or other form that will not result in particulate emissions of metal HAP (e.g., metal HAP that is in ingot, paste, slurry or moist pellet form or other form) are not required to comply with the cover/lid requirement.

E. Requirement to Conduct Leak Inspections When Equipment is in HAP Service

Comment: Three commenters suggested that leak inspections should be permitted to be conducted when equipment is in non-HAP (i.e., VOC) service. Two commenters cited the limited personnel available to conduct leak inspections and the limited time windows for when equipment is in HAP service and inspections may be conducted as rationale.

One commenter noted that there is little difference between detecting leaks for streams in VOC vs. HAP service, as many HAP and non-HAP solvents have similar vapor and odor thresholds and both can be detected adequately by sight, sound or smell. The commenter also stated that since the MON allows for sources to assume that equipment is in HAP service, then the CMAS rule should permit it as well.

Response: The EPA agrees with the commenters that conducting leak inspections when equipment is in VOC service is acceptable for the reasons described above, and has revised the

final rule to reflect this option, provided that leaks can be detected while in VOC service. As it may be very difficult for some facilities to conduct their inspections while equipment is in HAP service due to the limited amount of time and/or personnel available, this alternative will provide facilities with flexibility in conducting inspections while maintaining the same level of emissions reductions. This option does not apply to CMPU that contain metal HAP as particulate. For those units, the inspections must be conducted while the unit is in metal HAP service.

F. Applicability of the Family of Materials Concept

Comment: Two commenters supported the proposed revisions to the definition of "family of materials."

Response: The EPA has finalized the proposed revisions to this definition.

G. Requirements for Metal HAP Process Vents

Comment: Two commenters stated that the definition of metal HAP process vent should be revised to better reflect GACT for these emission points. The commenters state that in sulfuric acid regeneration units (SARUs), metal HAP are already controlled to >95 percent within the process itself and that it would be unreasonable to require an additional 95 percent control for metal HAP vents. The commenters recommend that a metal HAP process vent be defined as containing at least 50 ppmv

metal HAP (similar to the batch and continuous process vents definitions), or that all vents from SARUs be excluded.

Response: The EPA agrees with the commenters that a metal HAP process vent should be defined as containing at least 50 ppmv metal HAP, consistent with the definitions of batch and continuous process vents. In reviewing other rules that regulate the chemical sector (e.g., the MON) and define a process vent as containing at least 50 ppmv, the EPA found that it applied to process vents containing any HAP, not just organic HAP. As such, the EPA has revised the final rule to define a metal HAP process vent as containing at least 50 ppmv metal HAP.

Comment: One commenter requested that the EPA exempt process vents from CMPU using metal HAP in solution from the requirements for metal HAP process vents. The commenter cites the low potential for emissions from these low vapor pressure metal HAP solutions as rationale for exempting them. One commenter cited 40 CFR part 63, subpart CCCCCC as an example of an area source rule that exempts metal HAP in solution. The commenter also provided examples of regulatory text that could be used in the CMAS rule.

Response: The EPA agrees with the commenter that it is not necessary to subject process vents from CMPU using metal HAP in solution to the requirements for metal HAP process vents. As the CMAS rule requires that CMPU process vents with total metal HAP

emissions of less than 400 pounds/year (lb/yr) maintain records demonstrating that total metal HAP emissions are less than 400 lb/yr, and it is unlikely that process vents from CMPU handling only metal HAP in solution would ever exceed this value due to the little or no potential for air emissions to occur, this requirement results in an unnecessary recordkeeping burden for the facility. As such, we have revised the final rule to state that process vents from CMPU that only contain metal HAP in a liquid solution or other form that will not result in particulate emissions of metal HAP (e.g., metal HAP that is in ingot, paste, slurry or moist pellet form or other form) are not required to comply with the metal HAP process vent requirements.

H. Compliance Date

Comment: Four commenters requested that the EPA extend the compliance date for a period of time ranging from 18 months to 3 years. The commenters all stated that the potential expansion of the applicability of the final rule would require additional time for sources to re-evaluate whether they would be subject to the rule. One commenter also cited the uncertainty surrounding the family of materials concept as finalized in the original rule and the fact that the EPA did not address the de minimis threshold issue that the Petitioners raised in their petition for reconsideration as reasons for extending the compliance date. The commenters stated that the EPA has the legal authority

to extend the compliance date, citing the circumstances under which the EPA did so in the Boiler MACT reconsideration.

Response: The EPA agrees that a short extension of the compliance date is warranted for existing sources, not an extension of 18 months to 3 years. Given the amount of uncertainty regarding the applicability of the family of materials concept in the 2009 final rule, the EPA believes that with the revised definition of "family of materials" in these amendments, sources will need the short extension to evaluate applicability and determine the appropriate compliance approach. As such, the EPA believes it is reasonable to provide some additional period of time for facilities to review the revised final rule and determine which CMPU are subject to the requirements.

I. Technical Corrections

Comment: Six commenters objected to the proposed revision to base CMPU applicability on a collective 0.1 percent by weight (for carcinogens) or 1.0 percent by weight (for non-carcinogens) concentration, rather than an individual compound concentration. The commenters stated that this proposed change goes beyond being a "technical correction" as described in the proposal preamble, as it would significantly expand the scope of the rule and increase the compliance burden for facilities.

Two commenters stated that going to a collective HAP concentration would be inconsistent with the Toxics Release Inventory and the Occupational Safety and Health Administration Hazard Communication rules upon which the 0.1 percent and 1.0 percent thresholds were based and would be inconsistent with the definition of "product" in the CMAS rule.

Three commenters also noted that by having to use the collective concentration, facilities would no longer be able to use MSDS to determine applicability because MSDS are not provided for compounds at concentrations below 0.1 percent.

Response: The EPA agrees with the commenters that it is not appropriate to use a collective HAP concentration in determining applicability. It was not the EPA's intent to expand the applicability of the CMAS rule, but rather to clarify when it applied. As explained above and in section IV.F of this preamble, the commenters brought up numerous issues that the EPA had not considered when proposing this revision that would make determining applicability and complying with the rule extremely difficult. The expansion of the applicability was inadvertent and the final rule has not been revised as proposed.

Comment: Five commenters objected to the proposed revision to determine CMAS applicability based on a collective 50 ppmv concentration. The commenters state that, similar to the proposed revision to the 0.1/1.0 percent thresholds, this

revision would significantly expand the scope of the rule, as 50 ppmv is a much lower concentration than the 0.1/1.0 percent concentration thresholds that had already been established. Additionally, the commenters stated that facilities would no longer be able to rely upon MSDS for determining applicability and the revision goes beyond being a "technical correction" as described in the proposal preamble.

Response: The EPA agrees with the commenters that it is not appropriate to establish a collective 50 ppmv concentration threshold for determining applicability. It was not the EPA's intent to expand the applicability of the CMAS rule, but rather to make the applicability consistent with the definitions of batch and continuous process vents. As explained above and in section IV.F of this preamble, the commenters brought up numerous issues that the EPA had not considered when proposing this revision, which would have inadvertently expanded the applicability of the rule. The expansion of the applicability was inadvertent and the EPA has not revised the final rule as proposed.

VI. What other actions are we taking?

In addition to requesting reconsideration of the above issues, the petition for reconsideration also requested the EPA take comment on three additional issues: 1) a de minimis exemption for all sources potentially subject to the rule; 2) a

Petitioner proposed interpretation of the CAA section 112(c)(7) definition of "research or laboratory facilities" that would include commercial development activities; and 3) a pollution prevention alternative. The EPA is denying reconsideration of these issues because they failed to meet the standard for reconsideration under CAA section 307(d)(7)(B), and the EPA determined that reconsideration was not otherwise appropriate. Specifically, on these issues, the Petitioners have failed to show the following: that it was impracticable to raise their objections during the comment period; and/or that their concern is of central relevance to the outcome of the rules. We have concluded that no clarifications to the underlying rules are warranted for these issues.

Section 307(d)(7)(B) of the CAA states that "[o]nly an objection to a rule or procedure which was raised with reasonable specificity during the period for public comment (including any public hearing) may be raised during judicial review. If the person raising an objection can demonstrate to the Administrator that it was impracticable to raise such objection within such time or if the grounds for such objection arose after the period for public comment (but within the time specified for judicial review) and if such objection is of central relevance to the outcome of the rule, the Administrator shall convene a proceeding for reconsideration of the rule and

provide the same procedural rights as would have been afforded had the information been available at the time the rule was proposed. If the Administrator refuses to convene such a proceeding, such person may seek review of such refusal in the United States court of appeals for the appropriate circuit (as provided in subsection (b))."

As to the first procedural criterion for reconsideration, a petitioner must show why the issue could not have been presented during the comment period, either because it was impracticable to raise the issue during that time or because the grounds for the issue arose after the period for public comment (but within 60 days of publication of the final action). In the EPA's view, an objection is of central relevance to the outcome of the rule only if it provides substantial support for the argument that the promulgated regulation should be revised. See, e.g., the EPA's Denial of the Petition to Reconsider the Endangerment and Cause of Contribute Findings for the Greenhouse Gases under Section 202 of the Clean Air Act, 75 FR 49561 (August 13, 2010). See also, 75 FR 49556, 49560-49563 (August 13, 2010), and 76 FR 4780, 4786-4788 (January 26, 2011) for additional discussion of the standard for reconsideration under CAA section 307(d)(7)(B).

A. De Minimis Exemption

Petitioners stated that the EPA should revise the CMAS final rule to include an across-the-board de minimis exemption

for sources. The Petitioners argued that reconsideration would allow commenters to explain how, even with a de minimis exemption, the EPA could meet its statutory obligations.

This issue was contained in public comments submitted in response to the CMAS proposed rule published on October 6, 2008 (73 FR 58352). The EPA's responses to the comments are presented in section V.A of the preamble to the final rule (74 FR 56016-56018) and section 3.2 (pp. 3-3 - 3-4) of the October 2009 Response to Comments Regarding National Emission Standards for Hazardous Air Pollutants for Chemical Manufacturing Area Sources document (See Docket Item No. EPA-HQ-OAR-2008-0334-0087).

The comments received on this issue demonstrate that the public had ample opportunity to comment on this issue and indeed did so. The EPA responded to those comments and sees no substantive reason to revisit this issue. Therefore, because the Petitioners did not demonstrate that it was impracticable to comment on this issue during the comment period on the proposed rule and the Petitioners did comment on it during the comment period for the 2008 proposal, the EPA is denying reconsideration of this issue.

B. Research and Development Interpretation

Petitioners stated that the EPA should take comment on an interpretation of "research and laboratory facility" in the CMAS final rule that would exempt equipment associated with

"research" or "laboratory" activities as those terms are defined by the Petitioners. The Petitioners were concerned that, without an interpretation of the CAA section 112(c)(7) exemption for research and development facilities, the CMAS rule may pose a substantial compliance challenge for some sources.

This issue was contained in public comments submitted in response to the CMAS proposed rule published on October 6, 2008 (73 FR 58352). The EPA's responses to the comments are presented in section 3.5.3 (pp. 3-11) of the October 2009 Response to Comments Regarding National Emission Standards for Hazardous Air Pollutants for Chemical Manufacturing Area Sources document (See Docket Item No. EPA-HQ-OAR-2008-0334-0087).

The comments received on this issue demonstrate that the public had ample opportunity to comment on this issue and indeed did so. The EPA responded to those comments and sees no substantive reason to revisit this issue. Therefore, because the Petitioners did not demonstrate that it was impracticable to comment on this issue during the comment period on the proposed rule and the Petitioners did comment on it during the comment period for the 2008 proposal, the EPA is denying reconsideration of this issue.

C. Pollution Prevention Alternative

Petitioners stated that the EPA should revise the CMAS final rule to include a pollution prevention alternative. The

Petitioners argued that there would be broad interest in this alternative and that data would be made available for the EPA to specify requirements for such an alternative.

This issue was contained in public comments submitted in response to the CMAS proposed rule published on October 6, 2008 (73 FR 58352). The EPA's responses to the comments are presented in section 4.7 (pp. 4-7 - 4-8) of the October 2009 Response to Comments Regarding National Emission Standards for Hazardous Air Pollutants for Chemical Manufacturing Area Sources document (See Docket Item No. EPA-HQ-OAR-2008-0334-0087).

The comments received on this issue demonstrate that the public had ample opportunity to comment on this issue, and indeed did so. The EPA responded to those comments and sees no substantive reason to revisit this issue. Therefore, because the Petitioners did not demonstrate that it was impracticable to comment on this issue during the comment period on the proposed rule and the Petitioners did comment on it during the comment period for the 2008 proposal, the EPA is denying reconsideration of this issue.

VII. Statutory and Executive Order Reviews

A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review

Under Executive Order 12866 (58 FR 51735, October 4, 1993), this action is a "significant regulatory action" because it may raise novel legal or policy issues. Accordingly, the EPA submitted this action to the Office of Management and Budget (OMB) for review under Executive Order 12866 and Executive Order 13563 (76 FR 3821, January 21, 2011), and any changes made in response to OMB recommendations have been documented in the docket for this action.

B. Paperwork Reduction Act

The information collection requirements in this final rule have been submitted for approval to the OMB under the Paperwork Reduction Act, 44 U.S.C. 3501, et seq. The Information Collection Request (ICR) document prepared by the EPA has been assigned EPA ICR Number 2323.05. The information collection requirements are not enforceable until OMB approves them.

The information requirements are based on notification, recordkeeping and reporting requirements in the NESHAP General Provisions (40 CFR part 63, subpart A), which are mandatory for all operators subject to national emission standards. These recordkeeping and reporting requirements are specifically authorized by section 114 of the CAA (42 U.S.C. 7414). All information submitted to the EPA pursuant to the recordkeeping and reporting requirements for which a claim of confidentiality

is made is safeguarded according to agency policies set forth in 40 CFR part 2, subpart B.

For this final rule, the EPA is adding affirmative defense to the estimate of burden in the ICR. To provide the public with an estimate of the relative magnitude of the burden associated with an assertion of the affirmative defense position adopted by a source, the EPA has provided administrative adjustments to this ICR to show what the notification, recordkeeping and reporting requirements associated with the assertion of the affirmative defense might entail. The EPA's estimate for the required notification, reports and records for any individual incident, including the root cause analysis, totals \$2,958 and is based on the time and effort required of a source to review relevant data, interview plant employees and document the events surrounding a malfunction that has caused an exceedance of an emissions limit. The estimate also includes time to produce and retain the record and reports for submission to the EPA. The EPA provides this illustrative estimate of this burden because these costs are only incurred if there has been a violation and a source chooses to take advantage of the affirmative defense.

Given the variety of circumstances under which malfunctions could occur, as well as differences among sources' operation and maintenance practices, we cannot reliably predict the severity and frequency of malfunction-related excess emissions events for

a particular source. It is important to note that the EPA has no basis currently for estimating the number of malfunctions that would qualify for an affirmative defense. Current historical records would be an inappropriate basis, as source owners or operators previously operated their facilities in recognition that they were exempt from the requirement to comply with emissions standards during malfunctions. Of the number of excess emissions events reported by source operators, only a small number would be expected to result from a malfunction (based on the definition above), and only a subset of excess emissions caused by malfunctions would result in the source choosing to assert the affirmative defense. Thus, we believe the number of instances in which source operators might be expected to avail themselves of the affirmative defense will be extremely small. For this reason, we estimate no more than 2 or 3 such occurrences for all sources subject to 40 CFR part 63, subpart VVVVVV over the 3-year period covered by this ICR. We expect to gather information on such events in the future and will revise this estimate as better information becomes available.

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for the EPA's regulations in 40 CFR are listed in 40 CFR part 9. When this ICR is approved by OMB, the agency will

publish a technical amendment to 40 CFR part 9 in the **Federal Register** to display the OMB control number for the approved information collection requirements contained in this final rule.

C. Regulatory Flexibility Act

The Regulatory Flexibility Act generally requires an agency to prepare a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements under the Administrative Procedures Act or any other statute unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small organizations and small governmental jurisdictions.

For purposes of assessing the impacts of this final rule on small entities, small entity is defined as: (1) A small business as defined by the Small Business Administration's regulations at 13 CFR 121.201 (less than 500, 750 or 1,000 employees, depending on the specific NAICS Code under subcategory 325); (2) a small governmental jurisdiction that is a government of a city, county, town, school district or special district with a population of less than 50,000; and (3) a small organization that is any not-for-profit enterprise that is independently owned and operated and is not dominant in its field.

After considering the economic impacts of this final rule on small entities, I certify that this action will not have a significant economic impact on a substantial number of small entities. This final rule will not impose any new requirements on any small entities because it does not impose any additional regulatory requirements beyond those already promulgated.

D. Unfunded Mandates Reform Act

This action contains no federal mandates under the provisions of Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), 2 U.S.C. 1531-1538 for state, local or tribal governments or the private sector. This final rule imposes no enforceable duty on any state, local or tribal governments or the private sector. Therefore, this final rule is not subject to the requirements of sections 202 and 205 of the UMRA.

This action is also not subject to the requirements of section 203 of UMRA because it contains no regulatory requirements that might significantly or uniquely affect small governments. This rule finalizes amendments to aid with compliance but does not change the level of the standards in the rule.

E. Executive Order 13132: Federalism

This action does not have federalism implications. It will not have substantial direct effects on the states, on the relationship between the national government and the states or

on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132. This final rule will not impose direct compliance costs on state or local governments and will not preempt state law. Thus, Executive Order 13132 does not apply to this action.

F. Executive Order 13175: Consultation and Coordination with Indian Tribal Governments

This final rule does not have tribal implications, as specified in Executive Order 13175 (65 FR 67249, November 9, 2000). It will not have substantial direct effects on tribal governments, on the relationship between the federal government and Indian tribes or on the distribution of power and responsibilities between the federal government and Indian tribes, as specified in Executive Order 13175. Thus, Executive Order 13175 does not apply to this final rule.

G. Executive Order 13045: Protection of Children from Environmental Health Risks and Safety Risks

The EPA interprets Executive Order 13045 (62 FR 19885, April 23, 1997) as applying to those regulatory actions that concern health or safety risks, such that the analysis required under section 5-501 of the Executive Order has the potential to influence the regulation. This final rule is not subject to Executive Order 13045 because it is based solely on technology performance. Further, this action does not relax the control

measures on sources regulated by the final rule, and, therefore, will maintain the level of environmental protection.

H. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use

This action is not a "significant energy action" as defined in Executive Order 13211 (66 FR 28355, May 22, 2001), because it is not likely to have a significant adverse effect on the supply, distribution or use of energy. Further, this action does not change the level of standards already in place.

I. National Technology Transfer and Advancement Act

Section 12(d) of the National Technology Transfer and Advancement Act (NTTAA) of 1995, Public Law No. 104-113, 12(d) (15 U.S.C. 272 note) directs the EPA to use voluntary consensus standards (VCS) in its regulatory activities, unless to do so would be inconsistent with applicable law or otherwise impractical. VCS are technical standards (e.g., materials specifications, test methods, sampling procedures and business practices) that are developed or adopted by VCS bodies. The NTTAA directs the EPA to provide Congress, through OMB, explanations when the agency decides not use available and applicable VCS.

This final rulemaking does not involve technical standards. Therefore, the EPA did not consider the use of any VCS.

J. Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations

Executive Order 12898 (59 FR 7629, February 16, 1994) establishes federal executive policy on environmental justice. Its main provision directs federal agencies, to the greatest extent practicable and permitted by law, to make environmental justice part of their mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies and activities on minority populations and low-income populations in the United States.

The EPA has determined that this final rule, as amended, will not have disproportionately high and adverse human health or environmental effects on minority or low-income populations because the rule amendments maintain the level of environmental protection for all affected populations without having any disproportionately high and adverse human health or environmental effects on any population, including any minority or low-income population. This action does not relax the control measures on sources regulated by the final rule, and, therefore, will not cause emissions increases from these sources.

K. Congressional Review Act

The Congressional Review Act, 5 U.S.C. 801 et seq., as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. EPA will submit a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the Federal Register. A Major rule cannot take effect until 60 days after it is published in the Federal Register. This action is not a "major rule" as defined by 5 U.S.C. 804(2). This rule will be effective [INSERT DATE OF PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER] .

List of Subjects in 40 CFR Part 63

Environmental protection, Administrative practice and procedure,
Air pollution control, Hazardous substances.

Dated: December 14, 2012.

Lisa P. Jackson,
Administrator.

For the reasons cited in the preamble, title 40, chapter I, part 63 of the Code of Federal Regulations is amended as follows:

PART 63-- [AMENDED]

1. The authority citation for part 63 continues to read as follows:

Authority: 42 U.S.C. 7401, et seq.

Subpart VVVVVV-- [AMENDED]

2. Lift the stay of subpart VVVVVV published October 25, 2012 (77 FR 65135).

3. In §63.11494, lift the stay on paragraph (e) published March 14, 2011 (76 FR 13514).

4. Section 63.11494 is amended by:

- a. Revising paragraph (a);
- b. Adding paragraph (c)(1)(vii);
- c. Revising the last sentence in paragraph (d) introductory text;

d. Revising paragraphs (e) and (f) to read as follows:

§63.11494 What are the applicability requirements and compliance dates?

(a) Except as specified in paragraph (c) of this section, you are subject to this subpart if you own or operate a chemical manufacturing process unit (CMPU) that meets the conditions specified in paragraphs (a)(1) and (2) of this section.

(1) The CMPU is located at an area source of hazardous air pollutant (HAP) emissions.

(2) HAP listed in Table 1 to this subpart (Table 1 HAP) are present in the CMPU, as specified in paragraph (a)(2)(i), (ii), (iii), or (iv) of this section.

(i) The CMPU uses as feedstock, any material that contains quinoline, manganese, and/or trivalent chromium at an individual concentration greater than 1.0 percent by weight, or any other Table 1 HAP at an individual concentration greater than 0.1 percent by weight. To determine the Table 1 HAP content of feedstocks, you may rely on formulation data provided by the manufacturer or supplier, such as the Material Safety Data Sheet (MSDS) for the material. If the concentration in an MSDS is presented as a range, use the upper bound of the range.

(ii) Quinoline is generated as byproduct and is present in the CMPU in any liquid stream (process or waste) at a concentration greater than 1.0 percent by weight.

(iii) Hydrazine and/or Table 1 organic HAP other than quinoline are generated as byproduct and are present in the CMPU in any liquid stream (process or waste), continuous process vent, or batch process vent at an individual concentration greater than 0.1 percent by weight.

(iv) Hydrazine or any Table 1 HAP is produced as a product of the CMPU.

* * * * *

(c) * * *

(1) * * *

(vii) Lead oxide production at Lead Acid Battery Manufacturing Facilities, subject to subpart P P P P P P of this part.

* * * * *

(d) * * * A CMPU using only Table 1 metal HAP is required to control only total CAA section 112(b) metal HAP in accordance with §63.11495 and, if applicable, §63.11496(f).

* * * * *

(e) Any area source that installed a federally-enforceable control device on an affected CMPU is required to obtain a permit under 40 CFR part 70 or 40 CFR part 71 if the control device on the affected CMPU is necessary to maintain the source's emissions at area source levels. For new and existing sources subject to this rule on **[INSERT DATE OF PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER]** and subject to title V as a result of this rule, a complete title V permit application must be submitted no later than December 21, 2013. New and existing sources that become subject to this rule after **[INSERT DATE OF PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER]** must submit a complete title V permit application no later than 12 months after becoming subject to this rule if the source is

subject to title V as a result of this rule. Otherwise, you are exempt from the obligation to obtain a permit under 40 CFR part 70 or 40 CFR part 71, provided you are not otherwise required by law to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a). Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart.

(f) If you own or operate an existing affected source, you must achieve compliance with the applicable provisions in this subpart no later than **[INSERT DATE 90 DAYS AFTER PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER]**.

* * * * *

5. Section 63.11495 is amended by:

- a. Revising paragraphs (a)(1) and (a)(3);
- b. Adding paragraph (c) heading; and
- c. Adding paragraph (d) to read as follows:

§63.11495 What are the management practices and other requirements?

(a) * * *

(1) Each process vessel must be equipped with a cover or lid that must be closed at all times when it is in organic HAP service or metal HAP service, except for manual operations that require access, such as material addition and removal, inspection, sampling and cleaning. This requirement does not apply to process vessels containing only metal HAP that are in a

liquid solution or other form that will not result in particulate emissions of metal HAP (e.g., metal HAP that is in ingot, paste, slurry, or moist pellet form or other form).

* * * * *

(3) You must conduct inspections of process vessels and equipment for each CMPU in organic HAP service or metal HAP service, as specified in paragraphs (a)(3)(i) through (v) of this section, to demonstrate compliance with paragraph (a)(1) of this section and to determine that the process vessels and equipment are sound and free of leaks. Alternatively, except when the subject CMPU contains metal HAP as particulate, inspections may be conducted while the subject process vessels and equipment are in VOC service, provided that leaks can be detected when in VOC service.

(i) Inspections must be conducted at least quarterly.

(ii) For these inspections, detection methods incorporating sight, sound, or smell are acceptable. Indications of a leak identified using such methods constitute a leak unless you demonstrate that the indications of a leak are due to a condition other than loss of HAP. If indications of a leak are determined not to be HAP in one quarterly monitoring period, you must still perform the inspection and demonstration in the next quarterly monitoring period.

(iii) As an alternative to conducting inspections, as specified in paragraph (a)(3)(ii) of this section, you may use Method 21 of 40 CFR part 60, appendix A-7, with a leak definition of 500 ppmv to detect leaks. You may also use Method 21 with a leak definition of 500 ppmv to determine if indications of a leak identified during an inspection conducted in accordance with paragraph (a)(3)(ii) of this section are due to a condition other than loss of HAP. The procedures in this paragraph (a)(3)(iii) may not be used as an alternative to the inspection required by paragraph (a)(3)(ii) of this section for process vessels that contain metal HAP as particulate.

(iv) Inspections must be conducted while the subject CMPU is operating.

(v) No inspection is required in a calendar quarter during which the subject CMPU does not operate for the entire calendar quarter and is not in organic HAP service or metal HAP service. If the CMPU operates at all during a calendar quarter, an inspection is required.

* * * * *

(c) Startup, shutdown and malfunction. * * *

(d) General duty. At all times, you must operate and maintain any affected CMPU, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices

for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator, which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the CMPU.

6. Section 63.11496 is amended by:

- a. Revising the last sentence in paragraph (c);
- b. Revising paragraphs (d) and (e) introductory texts;
- c. Adding paragraph (e)(6);
- d. Adding a sentence to the end of paragraph (f)

introductory text;

- e. Revising paragraphs (f)(3)(i)(C), (f)(3)(ii), and (g)(1);
- f. Revising the first sentence in paragraph (g)(2); and
- g. Revising paragraphs (g)(4)(i) and (g)(5).

The additions and revisions read as follows:

§63.11496 What are the standards and compliance requirements for process vents?

* * * * *

(c) * * * The TRE index value for continuous process vents and the annual emissions from batch process vents shall be determined for the individual streams before they are combined, and prior to any control (e.g., by subtracting any emission

contributions from storage tanks, continuous process vents or batch process vents, as applicable), in order to determine the most stringent applicable requirements.

(d) Halogenated streams. You must determine if an emission stream is a halogenated vent stream by calculating the mass emission rate of halogen atoms in accordance with §63.115(d)(2)(v). Alternatively, you may elect to designate the emission stream as halogenated. If you use a combustion device to comply with the emission limits for organic HAP from a halogenated batch process vent or a halogenated continuous process vent, you must use a halogen reduction device to meet the emission limit in either paragraph (d)(1) or (d)(2) of this section and in accordance with §63.994 and the requirements referenced therein.

* * * * *

(e) Alternative standard for organic HAP. Exceptions to the requirements for the alternative standard requirements specified in Tables 2 and 3 to this subpart and §63.2505 are specified in paragraphs (e)(1) through (6) of this section.

* * * * *

(6) CEMS requirements and data reduction requirements for CEMS specified in §63.2450(j) apply.

* * * * *

(f) Emissions from metal HAP process vents. * * * The requirements of this paragraph (f) do not apply to metal HAP process vents from CMPU containing only metal HAP that are in a liquid solution or other form that will not result in particulate emissions of metal HAP (e.g., metal HAP that is in ingot, paste, slurry, or moist pellet form or other form).

* * * * *

(3) * * *

(i) * * *

(C) Operation and maintenance plan for the control device (including a preventative maintenance schedule consistent with the manufacturer's instructions for routine and long-term maintenance) and continuous monitoring system (CMS).

* * * * *

(ii) You must conduct a performance test or an engineering assessment for each CMPU subject to a HAP metals emissions limit in Table 4 to this subpart and report the results in your Notification of Compliance Status (NOCS). Each performance test or engineering assessment must be conducted under representative operating conditions, and sampling for each performance test must be conducted at both the inlet and outlet of the control device. Upon request, you shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests. If you own or operate an

existing affected source, you are not required to conduct a performance test if a prior performance test was conducted within the 5 years prior to the effective date using the same methods specified in paragraph (f)(3)(iii) of this section, and, either no process changes have been made since the test, or, if you can demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process changes.

* * * * *

(g) * * *

(1) Requirements for performance tests. (i) The requirements specified in §63.2450(g)(1) through (4) apply instead of, or in addition to, the requirements specified in 40 CFR part 63, subpart SS.

(ii) Upon request, you shall make available to the Administrator, such records as may be necessary to determine the conditions of performance tests.

(2) Design evaluation. To determine initial compliance with a percent reduction or outlet concentration emission limit, you may elect to conduct a design evaluation as specified in §63.1257(a)(1) instead of a performance test as specified in subpart SS of this part 63. * * *

* * * * *

(4) * * *

(i) You may measure pH or caustic strength of the scrubber effluent at least once per day for any halogen scrubber within a CMPU subject to this rule.

* * * * *

(5) Startup, shutdown, malfunction (SSM). Sections 63.996(c)(2)(ii) and 63.998(b)(2)(iii), (b)(6)(i)(A), (c)(1)(ii)(E) and (d)(3) do not apply for the purposes of this subpart.

* * * * *

7. Section 63.11497 is amended by adding paragraph (d) to read as follows:

§63. 11497 What are the standards and compliance requirements for storage tanks?

* * * * *

(d) Combustion of halogenated streams. If you use a combustion device to comply with the emission limits for organic HAP from a halogenated vent stream from a storage tank, you must reduce emissions in accordance with §63.11496(d) and the requirements referenced therein.

8. Section 63.11498 is amended by revising paragraph (a)(2) to read as follows:

§63.11498 What are the standards and compliance requirements for wastewater systems?

(a) * * *

(2) You are not required to determine the partially soluble concentration in wastewater that is hard piped to a combustion unit or hazardous waste treatment unit, as specified in Table 6, Item 2.b to this subpart.

* * * * *

9. Section 63.11500 is amended by revising paragraph (a) to read as follows:

§63.11500 What compliance options do I have if part of my plant is subject to both this subpart and another Federal standard?

* * * * *

(a) Compliance with other subparts of this part 63. (1) If any part of a CMPU that is subject to the provisions of this subpart is also subject to the provisions of another subpart of 40 CFR part 63, then compliance with any of the requirements in the other subpart of this part 63 that are at least as stringent as the corresponding requirements in this subpart VVVVVV constitutes compliance with this subpart VVVVVV.

(2) After the compliance dates specified in §63.11494, at an offsite reloading or cleaning facility subject to §63.1253(f), as referenced from §63.2470(e) and Table 4 to subpart VVVVVV, compliance with the monitoring, recordkeeping, and reporting provisions of any other subpart of this part 63 constitutes compliance with the monitoring, recordkeeping, and reporting provisions of §63.1253(f)(7)(ii) or (iii). You must

identify in your notification of compliance status report required by §63.11501(b) the subpart of this part 63 with which the owner or operator of the offsite reloading or cleaning facility complies.

* * * * *

10. Section 63.11501 is amended by:

- a. Revising the section heading;
- b. Revising the last sentence in paragraph (c) introductory text;
- c. Revising paragraph (c)(1) introductory text;
- d. Adding paragraphs (c)(1)(vii) and (c)(1)(viii);
- e. Revising paragraph (c)(4)(i);
- f. Adding paragraph (c)(8);
- g. Revising the last sentence in paragraph (d) introductory text; and
- h. Adding paragraphs (d)(8) and (e) to read as follows:

§63.11501 What are the notification, recordkeeping, and reporting requirements, and how may I assert an affirmative defense for violation of emission standards during malfunction?

* * * * *

(c) Recordkeeping. * * * If you are subject, you must comply with the recordkeeping and reporting requirements of §63.10(b)(2)(iii) and (vi) through (xiv), and the applicable

requirements specified in paragraphs (c)(1) through (8) of this section.

(1) For each CMPU subject to this subpart, you must keep the records specified in paragraphs (c)(1)(i) through (viii) of this section.

* * * * *

(vii) Records of the date, time, and duration of each malfunction of operation of process equipment, control devices, recovery devices, or continuous monitoring systems used to comply with this subpart that causes a failure to meet a standard. The record must include a list of the affected sources or equipment, an estimate of the volume of each regulated pollutant emitted over the standard, and a description of the method used to estimate the emissions.

(viii) Records of actions taken during periods of malfunction to minimize emissions in accordance with §63.11495(d), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

* * * * *

(4) * * *

(i) Keep records of the vessel dimensions, capacity, and liquid stored, as specified in §63.1065(a).

* * * * *

(8) For continuous process vents subject to Table 3 to this subpart, keep records of the occurrence and duration of each startup and shutdown of operation of process equipment, or of air pollution control and monitoring equipment.

(d) * * * Reports are required only for semiannual periods during which you experienced any of the events described in paragraphs (d)(1) through (8) of this section.

* * * * *

(8) Malfunctions. If a malfunction occurred during the reporting period, the report must include the number of instances of malfunctions that caused emissions in excess of a standard. For each malfunction that caused emissions in excess of a standard, the report must include a list of the affected sources or equipment, an estimate of the volume of each regulated pollutant emitted over the standard, and a description of the method used to estimate the emissions. The report must also include a description of actions you took during a malfunction of an affected source to minimize emissions in accordance with §63.11495(d), including actions taken to correct a malfunction.

(e) Affirmative defense for violation of emission standards during malfunction. In response to an action to enforce the standards set forth in §§63.11495 through 63.11499, you may assert an affirmative defense to a claim for civil penalties for

violations of such standards that are caused by malfunction, as defined at 40 CFR 63.2. Appropriate penalties may be assessed if you fail to meet your burden of proving all of the requirements in the affirmative defense. The affirmative defense shall not be available for claims for injunctive relief.

(1) To establish the affirmative defense in any action to enforce such a standard, you must timely meet the notification requirements in paragraph (e)(2) of this section, and must prove by a preponderance of evidence that:

(i) The violation:

(A) Was caused by a sudden, infrequent, and unavoidable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner; and

(B) Could not have been prevented through careful planning, proper design, or better operation and maintenance practices; and

(C) Did not stem from any activity or event that could have been foreseen and avoided, or planned for; and

(D) Was not part of a recurring pattern indicative of inadequate design, operation, or maintenance; and

(ii) Repairs were made as expeditiously as possible when a violation occurred. Off-shift and overtime labor were used, to the extent practicable to make these repairs; and

(iii) The frequency, amount, and duration of the violation (including any bypass) were minimized to the maximum extent practicable; and

(iv) If the violation resulted from a bypass of control equipment or a process, then the bypass was unavoidable to prevent loss of life, personal injury, or severe property damage; and

(v) All possible steps were taken to minimize the impact of the violation on ambient air quality, the environment and human health; and

(vi) All emissions monitoring and control systems were kept in operation if at all possible, consistent with safety and good air pollution control practices; and

(vii) All of the actions in response to the violation were documented by properly signed, contemporaneous operating logs; and

(viii) At all times, the affected CMPU was operated in a manner consistent with good practices for minimizing emissions; and

(ix) A written root cause analysis has been prepared, the purpose of which is to determine, correct, and eliminate the primary causes of the malfunction and the violation resulting from the malfunction event at issue. The analysis must also specify, using best monitoring methods and engineering judgment,

the amount of any emissions that were the result of the malfunction.

(2) Report. If you seek to assert an affirmative defense, you must submit a written report to the Administrator, with all necessary supporting documentation, that you have met the requirements set forth in paragraph (e)(1) of this section. This affirmative defense report must be included in the first periodic compliance report, deviation report, or excess emission report otherwise required after the initial occurrence of the violation of the relevant standard (which may be the end of any applicable averaging period). If such compliance report, deviation report, or excess emission report is due less than 45 days after the initial occurrence of the violation, the affirmative defense report may be included in the second compliance report, deviation report, or excess emission report due after the initial occurrence of the violation of the relevant standard.

11. Section 63.11502 is amended by:

a. In paragraph (a) adding in alphabetical order the terms "Batch operation (§63.2550)," "Continuous operation (§63.2550)," "Control device (§63.111)," and "Isolated intermediate (§63.2550)," and removing the term "Family of materials (§63.2550)"; and

b. In paragraph (b) adding in alphabetical order definitions for "Affirmative defense," "Engineering assessment," "Family of materials," "Hazardous waste treatment," "In VOC service," "Point of determination," and "Uncontrolled emissions," revising the second sentence of the definition of "Batch process vent," revising paragraph (1) of the definition of "Chemical manufacturing process," and revising the definitions for "In metal HAP service," "In organic HAP service," "Metal HAP process vent," and "Product" to read as follows:

§63.11502 What definitions apply to this subpart?

* * * * *

(b) * * *

Affirmative defense means, in the context of an enforcement proceeding, a response or defense put forward by a defendant, regarding which the defendant has the burden of proof, and the merits of which are independently and objectively evaluated in a judicial or administrative proceeding.

* * * * *

Batch process vent * * * Batch process vents include vents from batch operations and vents with intermittent flow from continuous operations that are not combined with any stream that originated as a continuous gas stream from the same continuous process. * * *

* * * * *

Chemical manufacturing process * * *

- (1) All cleaning operations;

* * * * *

Engineering assessment means, but is not limited to, the following:

- (1) Previous test results provided the tests are representative of current operating practices at the process unit.

- (2) Bench-scale or pilot-scale test data representative of the process under representative operating conditions.

- (3) Maximum flow rate, TOC emission rate, organic HAP emission rate, metal HAP emission rate, or net heating value limit specified or implied within a permit limit applicable to the process vent.

- (4) Design analysis based on accepted chemical engineering principles, measurable process parameters, or physical or chemical laws or properties. Examples of analytical methods include, but are not limited to:

- (i) Use of material balances based on process stoichiometry to estimate maximum organic HAP or metal HAP concentrations;

- (ii) Estimation of maximum flow rate based on physical equipment design such as pump or blower capacities;

(iii) Estimation of TOC, organic HAP, or metal HAP concentrations based on saturation conditions; or

(iv) Estimation of maximum expected net heating value based on the vent stream concentration of each organic compound or, alternatively, as if all TOC in the vent stream were the compound with the highest heating value.

(5) All data, assumptions, and procedures used in the engineering assessment shall be documented.

* * * * *

Family of materials means a grouping of materials that have the same basic composition or the same basic end use or functionality; are produced using the same basic feedstocks, the same manufacturing equipment configuration and in the same sequence of steps; and whose production results in emissions of the same Table 1 HAP at approximately the same rate per pound of product produced. Examples of families of materials include multiple grades of same product or different variations of a product (e.g., blue, black and red resins).

* * * * *

Hazardous waste treatment, as used in the wastewater requirements, means treatment in any of the following units:

(1) A hazardous waste incinerator for which you have been issued a final permit under 40 CFR part 270 and comply with the requirements of 40 CFR part 264, subpart O, for which you have

certified compliance with the interim status requirements of 40 CFR part 265, subpart O, or for which you have submitted a Notification of Compliance under 40 CFR 63.1207(j) and comply with the requirements of 40 CFR part 63, subpart EEE at all times (including times when non-hazardous waste is being burned);

(2) A process heater or boiler for which you have been issued a final permit under 40 CFR part 270 and comply with the requirements of 40 CFR part 266, subpart H, for which you have certified compliance with the interim status requirements of 40 CFR part 266, subpart H, or for which you have submitted a Notification of Compliance under 40 CFR 63.1207(j) and comply with the requirements of 40 CFR part 63, subpart EEE at all times (including times when non-hazardous waste is being burned); or

(3) An underground injection well for which you have been issued a final permit under 40 CFR part 270 or 40 CFR part 144 and comply with the requirements of 40 CFR part 122.

In metal HAP service means that a process vessel or piece of equipment either contains or contacts a feedstock, byproduct, or product that contains metal HAP. A process vessel is no longer in metal HAP service after the vessel has been emptied to the extent practicable (i.e., a vessel with liquid left on process vessel walls or as bottom clingage, but not in pools,

due to floor irregularity, is considered completely empty) and any cleaning has been completed.

In organic HAP service means that a process vessel or piece of equipment either contains or contacts a feedstock, byproduct, or product that contains an organic HAP, excluding any organic HAP used in manual cleaning activities. A process vessel is no longer in organic HAP service after the vessel has been emptied to the extent practicable (i.e., a vessel with liquid left on process vessel walls or as bottom clingage, but not in pools, due to floor irregularity, is considered completely empty) and any cleaning has been completed.

In VOC service means that a process vessel or piece of equipment either contains or contacts a fluid that contains VOC.

* * * * *

Metal HAP process vent means the point of discharge to the atmosphere (or inlet to a control device, if any) of a metal HAP-containing gas stream from any CMPU at an affected source containing at least 50 ppmv metal HAP. The metal HAP concentration may be determined using any of the following: process knowledge, an engineering assessment, or test data.

* * * * *

Point of determination means "point of determination" as defined in §63.111 in subpart G of this part, except:

(1) The reference to Table 8 or Table 9 compounds means Table 9 (subpart G) or Table 7 (subpart VVVVVV) compounds;

(2) The reference to "as determined in §63.144 of this subpart" does not apply for the purposes of this subpart; and

(3) The point of determination is made at the point where the stream exits the CMPU. If a recovery device is used, the point of determination is after the last recovery device.

Product means a compound or chemical which is manufactured as the intended product of the CMPU. Products include co-products. By-products, impurities, wastes, and trace contaminants are not considered products.

* * * * *

Uncontrolled emissions means organic HAP process vent emissions or metal HAP process vent emissions, as applicable, at the outlet of the last recovery device, if any, and prior to any control device. In the absence of both recovery devices and control devices, uncontrolled emissions are the emissions discharged to the atmosphere.

* * * * *

12. Table 3 to subpart VVVVVV of part 63 is revised to read as follows:

Table 3 to Subpart VVVVVV of Part 63—Emission Limits and Compliance Requirements for Continuous Process Vents

As required in §63.11496, you must comply with the requirements for continuous process vents as shown in the following table.

For...	You must...	Except...
1. Each continuous process vent with a TRE ≤ 1.0	a. Reduce emissions of total organic HAP by ≥ 95 percent by weight (≥ 85 percent by weight for periods of startup or shutdown) or to ≤ 20 ppmv by routing emissions through a closed vent system to any combination of control devices (except a flare) in accordance with the requirements of §63.982(c) and the requirements referenced therein; or	i. Compliance may be based on either total organic HAP or TOC; and ii. As specified in §63.11496(g).
	b. Reduce emissions of total organic by HAP by routing all emissions through a closed-vent system to a flare (except that a flare may not be used to control halogenated vent streams) in accordance with the requirements of §63.982(b) and the requirements referenced therein, or	i. Not applicable.
	c. Comply with the alternative standard specified in §63.2505 and the requirements referenced therein.	i. As specified in §63.11496(e).
2. Halogenated vent stream that is controlled through combustion	a. Comply with the requirements for halogen scrubbers in §63.11496(d).	
3. Each	a. Comply with the	

continuous process vent with a TRE >1.0 but ≤4.0	requirements of §63.982(e) and the requirements specified therein if a recovery device, as defined in §63.11502, is used to maintain a TRE >1.0 but ≤4.0.	
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13. The entry for Item 1 of Table 5 to subpart VVVVVV of part 63 is revised to read as follows:

Table 5 to Subpart VVVVVV of part 63—Emission Limits and Compliance Requirements for Storage Tanks

* * * * *

For each...	You must...	Except...
1. Storage tank with a design capacity ≥40,000 gallons, storing liquid that contains organic HAP listed in Table 1 to this subpart, and for which the maximum true vapor pressure (MTVP) of total organic HAP at the storage temperature is ≥5.2 kPa and <76.6 kPa.	a. Comply with the requirements of subpart WW of this part;	i. All required seals must be installed by the compliance date in §63.11494.
	b. Reduce total organic HAP emissions by ≥95 percent by weight by operating and maintaining a	i. Compliance may be based on either total organic HAP or TOC; ii. When the term storage vessel is used in subpart SS of

	closed-vent system and control device (other than a flare) in accordance with §63.982(c); or	this part, the term storage tank, surge control vessel, or bottoms receiver, as defined in §63.11502 of this subpart, applies; and iii. The requirements do not apply during periods of planned routine maintenance of the control device, as specified in §63.11497(b).
	c. Reduce total HAP emissions by operating and maintaining a closed-vent system and a flare in accordance with §63.982(b); or	i. The requirements do not apply during periods of planned routine maintenance of the flare, as specified in §63.11497(b); and ii. When the term storage vessel is used in subpart SS of this part, it means storage tank, surge control vessel, or bottoms receiver, as defined in §63.11502 of this subpart.
	d. Vapor balance in accordance with §63.2470(e); or	i. To comply with §63.1253(f)(6)(i), the owner or operator of an offsite cleaning or reloading facility must comply with §63.11494 and §63.11502 instead of complying with §63.1253(f)(7)(ii), except as specified in item 1.d.ii and 1.2.iii of this table. ii. The reporting requirements in §63.11501 do not

		<p>apply to the owner or operator of the offsite cleaning or reloading facility.</p> <p>iii. As an alternative to complying with the monitoring, recordkeeping, and reporting provisions in §§63.11494 through 63.11502, the owner or operator of an offsite cleaning or reloading facility may comply as specified in §63.11500 with any other subpart of this part 63 which has monitoring, recordkeeping, and reporting provisions as specified in §63.11500.</p>
	<p>e. Route emissions to a fuel gas system or process in accordance with the requirements in §63.982(d) and the requirements referenced therein.</p>	<p>i. When the term storage vessel is used in subpart SS of this part, it means storage tank, surge control vessel, or bottoms receiver, as defined in §63.11502.</p>
*	*	*

14. Table 6 to subpart VVVVVV of part 63 is revised to read as follows:

Table 6 to Subpart VVVVVV of Part 63--Emission Limits and Compliance Requirements for Wastewater Systems

As required in §63.11498, you must comply with the requirements for wastewater systems as shown in the following table.

For each...	You must...	And you must...
1. Wastewater stream	a. Discharge to onsite or offsite wastewater treatment or hazardous waste treatment.	i. Maintain records identifying each wastewater stream and documenting the type of treatment that it receives. Multiple wastewater streams with similar characteristics and from the same type of activity in a CMPU may be grouped together for recordkeeping purposes.
2. Wastewater stream containing partially soluble HAP at a concentration $\geq 10,000$ ppmw and separate organic and water phases	a. Use a decanter, steam stripper, thin film evaporator, or distillation unit to separate the water phase from the organic phase(s); or	i. For the water phase, comply with the requirements in Item 1 of this table, and ii. For the organic phase(s), recycle to a process, use as fuel, or dispose as hazardous waste either onsite or offsite, and iii. Keep records of the wastewater streams subject to this requirement and the disposition of the organic phase(s).
	b. Hard pipe the entire wastewater stream to onsite treatment as a hazardous waste, or hard pipe the entire wastewater stream to a point of transfer to onsite or offsite hazardous waste treatment.	i. Keep records of the wastewater streams subject to this requirement and the disposition of the wastewater streams.

15. Table 8 to subpart VVVVVV of part 63 is revised to read as follows:

Table 8 to Subpart VVVVVV of Part 63-Emission Limits and Compliance Requirements for Heat Exchange Systems

As required in §63.11499, you must comply with the requirements for heat exchange systems as shown in the following table.

For...	You must...	Except...
1. Each heat exchange system with a cooling water flow rate $\geq 8,000$ gal/min and not meeting one or more of the conditions in §63.104(a)	a. Comply with the monitoring requirements in §63.104(c), the leak repair requirements in §63.104(d) and (e), and the recordkeeping and reporting requirements in §63.104(f); or	i. The reference to monthly monitoring for the first 6 months in §63.104(b)(1) and (c)(1)(iii) does not apply. Monitoring shall be no less frequent than quarterly; ii. The reference in §63.104(f)(1) to record retention requirements in §63.103(c)(1) does not apply. Records must be retained as specified in §§63.10(b)(1) and 63.11501(c); and iii. The reference in §63.104(f)(2) to "the next semi-annual periodic report required by §63.152(c)" means the next semi-annual compliance report required by §63.11501(f).
	b. Comply with the heat exchange system requirements in §63.104(b) and the requirements referenced therein.	i. Not applicable.

16. Table 9 to subpart VVVVV of part 63 is amended by:

- a. Revising the entry for 63.6(e)(1)(i) and (ii), (e)(3), and (f)(1);
- b. Removing the entry for 63.7(a)(2), (b), (d), (e)(1)–(e)(3);
- c. Adding new entries for 63.7(a)(2), (b), (d), (e)(2)–(e)(3) and 63.7(e)(1);
- d. Removing the entry for 63.8(a)(1), (a)(4), (b), (c)(1)–(c)(3), (f)(1)–(5);
- e. Adding new entries for 63.8(a)(1), (a)(4), (b), (c)(1)(ii), (c)(2)–(c)(3), (f)(1)–(5), 63.8(c)(1)(i), and 63.8(c)(1)(iii);
- f. Revising the entry for 63.8(c)(4);
- g. Removing the entry for 63.8(c)(6)–(c)(8), (d), (e), (f)(6);
- h. Adding new entries for 63.8(c)(6)–(c)(8), (d)(1)–(d)(2), (e), (f)(6) and 63.8(d)(3);
- i. Revising the entry for 63.8(g)(5);
- j. Adding a new entry for 63.9(i);
- k. Removing the entry for 63.10(b)(2)(i)–(b)(2)(v);
- l. Adding new entries for 63.10(b)(2)(i), 63.10(b)(2)(ii), 63.10(b)(2)(iii), and 63.10(b)(2)(iv) and (v);
- m. Removing the entry for 63.10(c)(7)–(c)(8), (c)(10)–(c)(12), (c)(15);

n. Adding new entries for 63.10(c)(7)-(8), 63.10(c)(10), 63.10(c)(11), 63.10(c)(12), and 63.10(c)(15); and

o. Revising the entry for 63.10(d)(5).

The additions and revisions read as follows:

Table 9 to Subpart VVVVV of Part 63--Applicability of General Provisions to Subpart VVVVV

* * * * *

Citation	Subject	Applies to Subpart VVVVV	Explanation
* * * * *	* * * * *	* * * * *	* * * * *
63.6(e)(1)(i) and (ii), (e)(3), and (f)(1)	SSM Requirements	No	See §63.11495(d) for general duty requirement.
* * * * *	* * * * *	* * * * *	* * * * *
63.7(a)(2), (b), (d), (e)(2)–(e)(3)	Performance Testing Schedule, Notification of Performance Test, Performance Testing Facilities, and Conduct of Performance Tests	Yes/No	Requirements apply if conducting test for metal HAP control; requirements in §§63.997(c)(1), (d), (e), and 63.999(a)(1) apply, as referenced in §63.11496(g), if conducting test for organic HAP or hydrogen halide and halogen HAP control device.
63.7(e)(1)	Performance Testing	No	See §63.11496(f)(3)(ii) if conducting a test for metal HAP emissions. See §§63.11496(g) and 63.997(e)(1) if conducting a test for continuous process vents or for hydrogen halide and halogen emissions. See

			§§63.11496(g) and 63.2460(c) if conducting a test for batch process vents.
63.8(a)(1), (a)(4), (b), (c)(1)(ii), (c)(2)-(c)(3), (f)(1)-(5)	Monitoring Requirements	Yes	
63.8(c)(1)(i)	General Duty to Minimize Emissions and CMS Operation	No	
63.8(c)(1)(iii))	Requirement to Develop SSM Plan for CMS	No	
* * * * *			
63.8(c)(4)		Yes	Only for CEMS. CPMS requirements in 40 CFR part 63, subpart SS are referenced from §63.11496. Requirements for COMS do not apply because subpart VVVVVV does not require COMS.
* * * * *			
63.8(c)(6) - (c)(8), (d)(1)-(d)(2), (e), (f)(6)		Yes	Requirements apply only if you use a continuous emission monitoring system (CEMS) to demonstrate compliance with the alternative standard in §63.11496(e).
63.8(d)(3)	Written Procedures for CMS	Yes	Requirement applies except for last sentence, which refers to an SSM plan. SSM plans are not required.
* * * * *			
63.8(g)(5)		No	Data reduction requirements for CEMS are specified in §63.2450(j)(4), as

			referenced from §63.11496. CPMS requirements are specified in 40 CFR part 63, subpart SS, as referenced from §63.11496.
*	*	*	*
63.9(i)		Yes	
*	*	*	*
63.10(b)(2)(i)	Recordkeeping of Occurrence and Duration of Startups and Shutdowns	No	See §63.11501(c)(8) for recordkeeping of occurrence and duration of each startup and shutdown for continuous process vents that are subpart to Table 3 to this subpart.
63.10(b)(2)(ii)	Recordkeeping of Malfunctions	No	See §63.11501(c)(1)(vii) and (viii) for recordkeeping of (1) date, time, duration, and volume of excess emissions and (2) actions taken during malfunction.
63.10(b)(2)(iii)	Maintenance Records	Yes	
63.10(b)(2)(iv) and (v)	Actions Taken to Minimize Emissions During SSM	No	
*	*	*	*
63.10(c)(7)-(8)	Additional Recordkeeping Requirements for CMS - Identifying Exceedances and Excess Emissions	Yes	
63.10(c)(10)	Recordkeeping Nature and Cause of Malfunctions	No	See §63.11501(c)(1)(vii) and (viii) for malfunctions

			recordkeeping requirements.
63.10(c)(11)	Recording Corrective Actions	No	See §63.11501(c)(1)(vii) and (viii) for malfunctions recordkeeping requirements.
63.10(c)(12)		Yes	
63.10(c)(15)	Use of SSM Plan	No	
* * * *			
63.10(d)(5)	SSM Reports	No	See §63.11501(d)(8) for reporting requirements for malfunctions.
* * * *			

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